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THE INSECT PEST SURVEY  
BULLETIN

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A periodical review of entomological conditions throughout the United States  
issued on the first of each month from March to December, inclusive.

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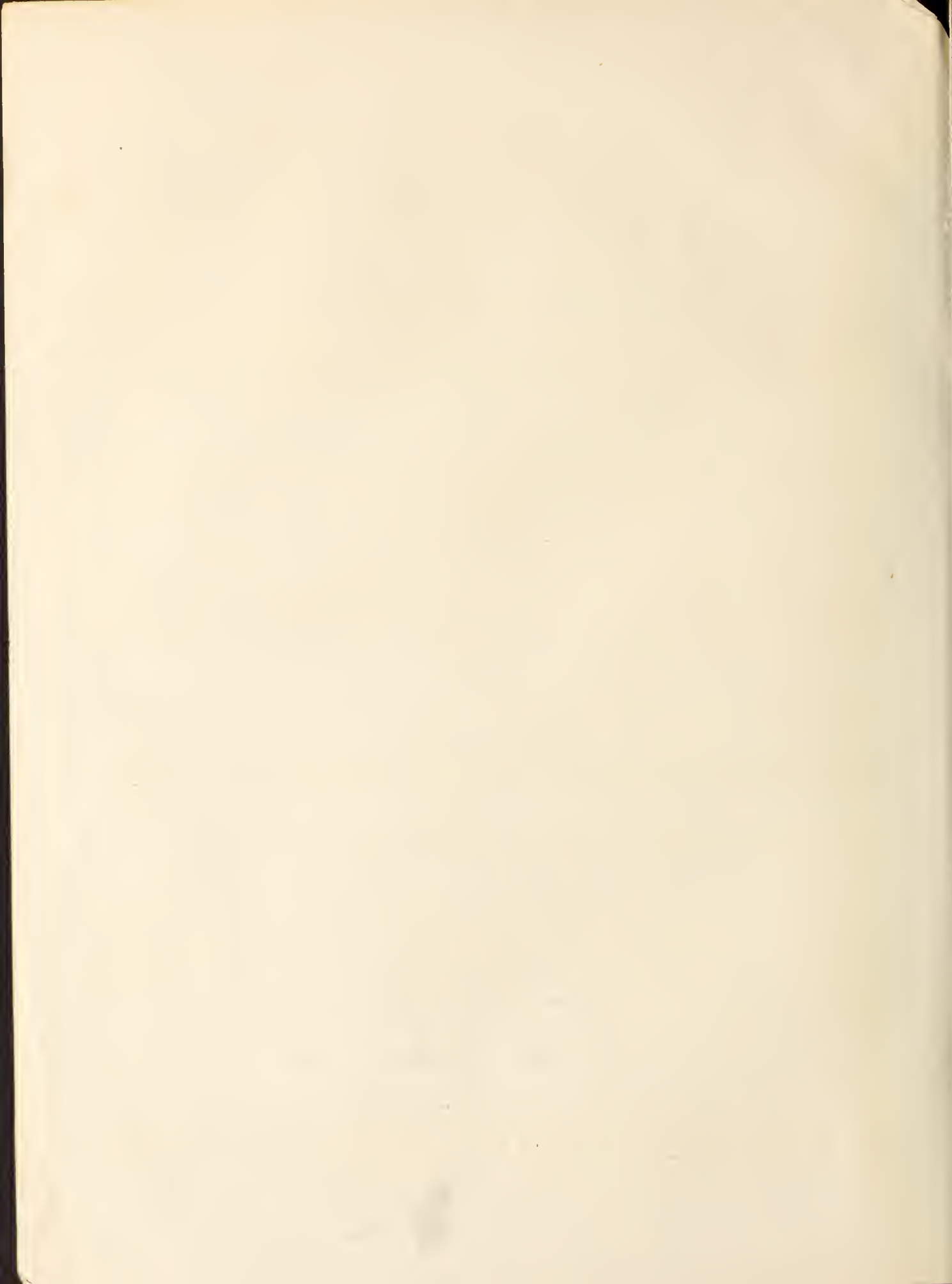
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# INSECT PEST SURVEY BULLETIN

Vol. 7

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No. 7

## OUTSTANDING ENTOMOLOGICAL FEATURES IN THE UNITED STATES FOR AUGUST, 1927

The European corn borer has been found in eleven new counties in Ohio, extending from Mercer County on the west-central border of the State to Madison County in the south-central part of the State; in three new counties (Kosciusko, Wells, and Adams) in Indiana; in two new counties in Michigan; in eight new counties in Pennsylvania, extending to the southern border of the State, and in the eastern part of the State to Northumberland and Wyoming Counties; and in one new county in New York State.

White grubs have been exceedingly destructive this season in the East-Central States extending from northern Indiana and Illinois westward to Nebraska.

The fall armyworm has been generally prevalent in the Southeast and lower Mississippi Valley, damage being exceedingly bad in the Delta region.

Present indications are that the Hessian fly will be quite serious in early planted wheat in Illinois, as the fly is well distributed and moderately abundant. The late summer survey in Maryland indicates that the fly is much more prevalent in the western part of the State than on the Eastern Shore. The State average on the whole, is high, being 21 per cent.

Throughout the entire corn belt to the lower Mississippi Valley, the corn ear worm is doing the usual amount of damage to both corn and tomatoes.

The chinch-bug situation, on the whole, is rather favorable, no serious damage having been reported from any part of the chinch-bug belt.

In the West-Central States the armyworm is present in outbreak numbers. Reports of heavy damage have been received from South Dakota and Iowa.

The spotted cucumber beetle is unusually destructive to corn in the southern part of the East-Central States from southern Indiana westward to Iowa, and southward to Missouri, the damage being particularly prevalent in the overflow areas along the Missouri and Mississippi Rivers. In areas north of this region, the corn root worm is attacking the corn and immediately west of this area in western Nebraska Diabrotica virgifera is attacking corn seriously for the first time in that State.

The alfalfa weevil has been more destructive in eastern Idaho than any year since 1921.

The Japanese beetle has been found this summer as far west as Wilkes-Barre and Gettysburg, Pa., and as far south as Washington, D. C., and Cambridge, Md., and as far northeast as Bridgeport, Connecticut.

In the New England States and New York the apple maggot emerged later than usual, and considerable damage to fruit is being reported from this region.

Present indications are that there will be a heavy infestation by late codling moth larvae in Indiana, Georgia, and Idaho.

In the fruit-growing sections of New England and New York the pear psylla is again prevalent, while pears are being seriously damaged by the pear thrips in parts of California.

The oriental fruit moth is becoming increasingly abundant. Connecticut reports a general increase while Georgia records the heaviest infestation ever observed in the State. Other reports on this insect have been received from New York, Delaware, Maryland, and Ohio.

A very serious infestation of raspberries by the raspberry fruit worm has developed in the important raspberry and loganberry canning districts of Washington. This infestation has become so intense that the fruit canners are rejecting the fruit and many growers have stopped picking.

No further Mexican fruit worm infestations have been reported from Texas.

The citrus thrips has scarred as high as 80 per cent of the crop in parts of the California citrus belt.

The unusually heavy infestations of the stalk borer reported in the last number of the Bulletin continued throughout August.

The usual number of reports on damage by blister beetles to truck crops is being received. An interesting note along this line was sent in from California where Tegrodera latecicta Horn was observed damaging alfalfa in Inyo County. This insect is a native of the sage brush country and has not been observed heretofore as a crop pest.

An outbreak of the Colorado potato beetle in a restricted area in Idaho is attracting considerable attention, and the possibility of eradicating the pest has not been abandoned.

The Mexican bean beetle is now well established at North Collins and Gowanda in western New York State, and along the northern border of Pennsylvania eastward to Tioga, Center, and Huntington Counties and along the southern border of the State to Lancaster County. No material advance has been made toward the South with the exception of a few counties in the northern half of Georgia and three counties in the northeastern corner of Mississippi. Much damage is being reported from the east-central infested areas.

The boll-weevil situation as a whole is unfavorable. In the eastern part of Texas far more injury is reported than usual for this time of the year. In central Texas damage does not appear to be serious. In Arkansas the weevil appears to be more abundant in the western portion of the State than in any year since 1923; apparently the eastern portion of the State is not so seri-



ously infested as the western portion. In Louisiana infestation has been complete for at least 10 days, however, owing to "spotted" conditions of weevil infestations some fields are still making cotton. In Mississippi 40 per cent of the squares are punctured in the hill counties, being a marked increase over those infested in the earlier part of the month; the weevils were four times as abundant on August 20 as they were on this same date last year. The flooded areas of the Delta are still practically free of the weevil. In Alabama the weevil has continued to multiply in enormous numbers in the south-central part of the State, and some fields in part of the Piedmont region will not yield over 50 bolls of cotton to the acre. Georgia will harvest a very poor crop of cotton over the southern two-thirds of the State; the loss is estimated at from 40 to 50 per cent, while hundreds of acres will not be picked; damage decreases progressively northward. In South Carolina the average infestation in the vicinity of Florence is 77.36 per cent; weevil infestation, however, was generally light in this State and found only in scattered areas in the lower and middle Piedmont section. In North Carolina increasing damage by this insect is reported throughout the cotton section, damage being much more serious in the southern counties.

No commercial damage by cotton flea hoppers is reported from the cotton belt with the exception of a few isolated fields in parts of Texas.

The cotton leaf worm is decidedly later than usual this year; consequently little damage is to be anticipated to deciduous fruit and grapes in the northern States, and the cotton is so far advanced that but little damage can result from the feeding of the larvae.

#### OUTSTANDING ENTOMOLOGICAL FEATURES IN CANADA FOR AUGUST, 1927

The Mexican bean beetle was found in Canada for the first time on July 20, at Cedar Springs, Kent County, Ontario, north of Lake Erie. Subsequent scouting has revealed the insect at numerous points in Kent and Essex Counties, and isolated collections have been made in Halton, York, and Peel Counties, northwest of Lake Ontario.

Scouting to determine the distribution and spread of the European corn borer in Ontario and southern Quebec is now under way. Preliminary scouting work has also been started in the Maritime Provinces where this insect has not yet been found.

A widespread outbreak of the beet webworm occurred in central and southern Saskatchewan, economic damage chiefly being confined to gardens. A patchy outbreak occurred on sugar beets in southern Alberta, but caused no serious loss.

Reports from central Saskatchewan indicate a heavier and more widespread infestation of the red turnip beetle than has occurred for many years. This species was also reported as quite severe in the Bulkley valley, British Columbia.

The flax armyworm, Barathra configurata Walk., is more abundant than ever before in certain sections of southern Alberta, attacking alfalfa, sweet clover, garden flowering plants and weeds.

There have been few reports of severe cutworm damage from any part of the Dominion.

Difficulty in effectively controlling the Colorado potato beetle this season owing to the frequent rains washing off spraying materials, has been reported from sections of the Maritime Provinces and Ontario. In southern Manitoba, this insect has decidedly increased in numbers over 1926, but it has been a serious pest in only a few localities. Heavy infestations are reported from southern Alberta.

The European earwig is increasing rapidly in the Vancouver and New Westminster districts, British Columbia, where houses and gardens are heavily infested.

There has been a severe outbreak of the green apple aphid in Ontario, which, in intensity and duration, has been the worst yet experienced.

Fruit tree leaf-rollers have been very scarce throughout the Okanagan Valley, British Columbia, this season.

Numbers of the introduced codling moth parasite Ascogaster carpocapsae Vier. have been liberated at points in the Okanagan Valley and southeastern British Columbia.

Fir and spruce sawflies, Neodiprion abietis Harr., and Pachynematus ocreatus Harrington, are widespread and unusually abundant in southern Manitoba.

The infestation of the spruce budworm in the southern half of Cape Breton Island, affecting spruce, balsam, hemlock, and larch, is decidedly less severe than in 1926. Spruce and balsam trees dead or dying from the attack of this insect are heavily infested with Monochamus scutellatus Say.

The house mosquito, Culex pipiens L. has been found developing in immense numbers in extensive semistagnant backreaches of the Ottawa River at Harboursburg, Ontario.

GENERAL FEEDERS

WHITE GRUBS (Phyllophaga spp.)

- Indiana J. J. Davis (July 30): White grubs were reported damaging strawberry at Indianapolis, and golf greens at Gary.
- H. K. Riley (Aug. 20): White grubs were reported damaging golf greens at Culver Military Academy.
- Illinois W. P. Flint (August 18): Numerous reports have been coming in of damage by these insects to lawns and field crops. Thus far all injury reported has been in the central and northern counties of the State. Grubs are slightly under size for this period in the second year of their growth.
- Nebraska M. H. Swenk (July 25 - August 25): During the period covered by this report complaints of injury by white grubs have continued to come in steadily. Most of these complaints refer to injury to strawberry beds, as previously, but some also describe serious injury in cornfields, and also in truck patches to carrots, beets, onions, and other vegetables, and still others to injury to privet hedges, and to gladiolus and other plants in flower gardens. White grubs have been exceedingly destructive this season.

LUBBER GRASSHOPPER (Brachystola magna Gir.)

- Alabama J. M. Robinson (August 1): Lubber grasshoppers are abundant in Escambia and Tuscaloosa Counties.

CEREAL AND FORAGE - CROP INSECTS

MISCELLANEOUS FEEDERS

FALL ARMYWORM (Laphygma frugiperda S. & A.)

- North Carolina J. N. Tenhet (August 17): Twelve-acre field of corn attacked. Corn is in silk, and although infestation is heavy, corn will probably mature before damage is very severe.
- Georgia H. S. Swingle (July 28): Fall armyworm now moving in large numbers from crab grass, growing in orchards, to adjacent cornfields.
- Illinois W. P. Flint (August 18): The fall armyworm has been reported from many cornfields in the southern third of the State. The infestation extends to a little below the latitude of St. Louis. All cases of injury reported are from corn. The worms are full-grown and going into the pupal stage at this time, so that another brood will certainly occur in the State this fall. Severe damage to corn has been reported in several cases.



Alabama

J. M. Robinson (August 1): The fall armyworm is beginning to show up in several places in the state, particularly in the Piedmont section. We have not determined how extensive the infestation is. (August 16): The fall armyworm has been active in the Piedmont region of the State, and they have grown considerably more abundant in the past week.

Mississippi

R. W. Harned (August 22): The southern grassworm has been very abundant in Mississippi during the past month. A large number of complaints accompanied by specimens have been received at this office. Both cotton and corn have in some cases been quite seriously injured. Specimens collected on corn have been received from Sunflower, Warren, Sharkey, Tate, Washington, Marshall, Alcorn, and Quitman Counties. Specimens collected on cotton have been received from Humphreys, Tallahatchie, Yazoo, Warren, Lauderdale, Sharkey, Bolivar, and Washington Counties. Specimens on sorghum were collected on the property of the Delta Experiment Station at Stoneville in Washington County.

Texas

F. C. Bishopp (August 10): Some complaints have been received of these worms attacking Bermuda grass and other pasture grasses in this vicinity. The worms appear to have done very little damage to cotton or other crops.

WHEAT

HESSIAN FLY (*Phytophaga destructor* Say)

Illinois

W. P. Flint (August 18): On the whole, the Hessian fly infestation in Illinois is very much the same as in the Fall of 1926. There has been a slight increase in infestation in the eastern counties and a slight decrease in the southern Counties, while the infestation in the central and west-central counties is approximately the same as last year. The average infestation for the State this year is 4.29 per cent, or in other words out of every 100 wheat stems in the State, 4 now contain flaxseeds of the Hessian Fly, from which a brood of adult flies will begin emerging this fall. This is shown by the results of the annual wheat insect survey which is conducted each year during the first two weeks of August by the entomologists of the Natural History Survey. This year entomologists of the Federal Bureau of Entomology have cooperated in this work.

One of the outstanding conditions shown by the survey is that of the even distribution of fly over all sections covered. In southern Illinois, where the infestation is the lightest, a little less than one-third of the fields show infestation, but in other sections of the State nearly all fields contained the fly in small to moderate numbers. The percentage of fly killed by parasites or other causes was fairly high in southern Illinois, and about normal in the other sections.



Summing up the results of the Survey, we apparently will have very close to normal emergence of the Hessian fly this fall. That is, the main brood will come out on about the average date. Apparently the brood will be rather well bunched and not scattered out as is the case in some years. There is likely to be a moderately heavy infestation in early-sown wheat in the eastern and central parts of the State, with a light infestation in early-sown wheat in southern and western Illinois. The fly-free date will probably hold very close to those indicated on the enclosed map this year.

The fly has caused very little damage in Illinois during the last few years, but it is in a good position to come back strong if early seeding is generally practiced in any section.

# Maryland

C. C. Hill and H. D. Smith (August 19): The following table shows the percentage of wheat culms found infested with the Hessian Fly. The infestation was much lighter on the Eastern Shore than in western Maryland. The average county infestation for the State was 12 per cent as compared with 2 per cent infestation found in 1925 and 1926. Occasional wheat fields in western Maryland showed considerable damage from the fly, and these may be a source of heavy infestation for the coming season.

Western Maryland		Eastern Shore	
County	Per cent	County	Per cent
Anne Arundel	52	Cecil	11
Baltimore	11	Dorchester	16
Carroll	29	Somerset	10
Frederick	31	Wicomico	12
Montgomery	34	Average	12
Washington	31		
Average	27	Average for the State	21

## WHEAT STEM MAGGOT (Meromyza americana Fitch)

# South Dakota

H. C. Severin (August 8): Reports of usual damage by the wheat stem maggot to wheat and barley over the State, have been received.

## JOINT WORM (Harmolita tritici Fitch)

# Illinois

W. P. Flint (August 18): An infestation in Hancock County of 28 per cent with light infestations in a few of the western and southwestern counties of the State.

## A FALSE WIREWORM (Eleodes hispilabris Say)

# Idaho

C. Wakeland (July 29): False wireworms have destroyed many acres of wheat in the dry farming areas of eastern Idaho this season. Several of the farmers are planning a poisoning campaign against the beetles this fall.

CORN

EUROPEAN CORN BORER (Pyrausta nubilalis Hbn.)

General

L. H. Northley (August 20): The following is a complete list to date of all counties from which new township records for the European corn borer have been received this season: Allen, Auglaize, Coshocton, Delaware, Franklin, Hardin, Holmes, Knox, Licking, Logan, Madison, Marion, Mercer, Miami, Morrow, Shelby, Tuscarawas, Union, and Van Wert, OHIO; Adams, Allen, Kosciusko, LaGrange, Noble, Tells, and Whitley, INDIANA; Clinton and Eaton, MICHIGAN; Bedford, Columbia, Fayette, Huntingdon, Montour, Northumberland, Somerset, Union, and Worming, PENNSYLVANIA; Delaware, NEW YORK.

Those underlined are new county records also. Although the degree of infestation found and the chance of spread from these areas before fall are extremely slight, a change in the quarantine line is contemplated as soon as more territory has been covered by the scouts.

Ohio and  
Michigan

Monthly Letter, Bur. Ent. No. 159, (July, 1927): Adults of the imported parasite Exgristes roborator Fab. have been recovered in the parasite conservation cages at Monroe and Erie, Mich., and at Sandusky, Ohio.

General

Monthly Letter, Bur. Ent. No. 159, (July, 1927): A portion of the foreign parasites of the corn borer which have been shipped from Arlington to the Middle West for liberation in the field have included adults of Anatitia punctator Roman, which were reared from corn-borer material collected in New England. This foreign parasite of the corn borer, originally introduced into New England, has been recovered in increasing numbers each year in that area, and is now being used for recolonization.

CORN EAR WORM (Heliothis obsoleta Fab.)

Georgia

H. S. Swingle (July 28): The corn ear worm is causing considerable damage to late corn in this section. In one field as high as five larvae were found feeding on the top of a single plant. Practically every plant in one section of the field was injured.

Ohio

E. W. Mendenhall (August 18): The corn ear worm is very serious and general in Ohio this year.

Indiana

J. J. Davis (July 30): The corn ear worm has been reported within the past few days eating into the developing tassels of corn from Indianapolis, Rushville, and Campbellsburg.

H. K. Riley (August 20): The corn ear worm was reported damaging sweet corn at Huntington and Warsaw, and popcorn at Cicero.

Iowa

C. N. Ainslie (August 13): Sweet corn in gardens is almost univer-

sally attacked by this pest and field corn is also suffering severe injury, nearly or quite as great as last year. Larvae are nearly mature at this time.

C. N. Ainslie (August 26): The cold wet spring of the present year retarded the planting and germination of corn to such an extent that adults of the corn ear worm had practically disappeared before the ears developed silk. As a result almost no injury is being done by this pest this year in the territory tributary to Sioux City. Many fields of corn, even at this date, are just in the fresh silk stage and it is possible that moths may appear in time to oviposit before the silk dries, in which case another brood may develop.

Mississippi R. W. Harned (August 22): Complaints in regard to the corn ear worm or cotton boll worm have been received recently from several localities. Corn was the crop being injured at Yazoo City in Yazoo County, Roxie in Franklin County, and Lorena in Smith County. Cotton was being injured at Lamkin, Nitta Yuma, and Suter in Sharkey County, Yazoo City in Yazoo County, and Hollandale in Washington County.

LESSER CORN STALK BORER (Elasmopalpus lignosellus Zell.)

Mississippi R. W. Harned (August 22): Only one complaint has been received recently in regard to the lesser corn stalk borer. Specimens of this insect collected on sorghum were received on August 12 from the Delta Experiment Station at Stoneville.

CHINCH BUG (Blissus leucopterus Say)

Illinois W. P. Flint (July 19): J. H. Bigger has just completed a survey of chinch bug conditions in the area which was most heavily infested in the early spring. In spite of the heavy rains during May and June, enough bugs have survived to cause some damage in the south central counties. A month ago it seemed impossible that any damage from this insect could occur in this section, but a period of approximately 25 days without rain has enabled the chinch bug to come back in surprisingly large numbers in some sections. If the remainder of the summer continues moderately dry, there will be a chance for a sufficient number of second brood bugs in this region to cause serious damage in 1928. (August 13): During the past month there has been several reports of chinch-bug damage in the south-central counties and two rather isolated reports of damage in the north-central counties. The actual loss from this insect in the State this year will be rather small.

Nebraska M. H. Swenk (July 25-August 25): Continued cool weather during August, together with one or more heavy rains in most localities in southeastern Nebraska where the chinch bug has been troublesome



during the past several seasons, has apparently had the effect of still further reducing the numbers of this pest, through interference with the development of the second brood. The weather of the entire spring and summer of 1927 has acted adversely to this insect, and a diminution of its injuries is expected in most localities in this State next year. In some localities, however, the second brood is now present in the cornfields in a fair abundance.

ARMYWORM: (Cirphis unipuncta Haw.)

- Illinois W. P. Flint (July 19): While there have been no serious armyworm outbreaks, a moderate number of larvae can be found in cornfields in nearly any section of the State.
- Iowa C. J. Drake (August 2): Armyworms occur in large numbers in the counties of Franklin, Hardin, and Iowa. In a 65-acre field of oats in Hardin County, we found the caterpillars beneath the shocks of oats to run from almost 100 to over 400 per shock. When shocking the oats the farmer counted 142 armyworms beneath a single bundle. The worms vary in size from about one-third grown to mature caterpillars. In Iowa County a couple of fields of corn have been badly injured by armyworms, the caterpillars migrating from oat fields.
- South Dakota H. C. Severin (August 8): Damage reported by the armyworm to small grain and corn, especially in old Lake beds in Wilmot and Ortleigh Counties.

BLACK CUTWORM: (Agrotis ypsilon Rott.)

- Illinois W. P. Flint (July 19): Conditions have been very favorable. Damage by this species of cutworm has been reported from all parts of Illinois. In many cases the larvae are still working on corn which is 8 to 20 inches high. Where they are attacking corn of this size they usually bore into the lower part of the stalk, oftentimes entering the stalk. Actual counts of damage by these worms in one of the central counties show a destruction of the corn amounting to from 15 to 45 per cent of the hills. Some fields have been so severely damaged that they have been abandoned.

CORN ROOT APHID (Aphis maidi-radici Forbes)

- Missouri K. C. Sullivan (July 29): The corn root louse is unusually bad this season, and we are receiving inquiries from all sections of the State.
- Nebraska M. H. Swenk (July 25-August 25): Complaints of injury by the corn root aphid referred to in my last report continued through the month of July.

SPOTTED CUCUMBER BEETLE (Diabrotica duodecimpunctata Fab.)

- Indiana J. J. Davis (July 30): The southern corn root worm continues to be reported from various sections of the State, especially central



Indiana, as a serious pest of corn. Today we received our first reports of injury by the beetles, since early reports this spring, the report coming from Shelbyville where the beetles were damaging garden beans, eating into the green pods.

H. K. Riley (August 20): The southern corn root worm was reported as seriously damaging corn at Chalmers August 9.

Illinois

W. P. Flint (July 19): Many specimens of this insect are being sent in from southern and central Illinois. Damage by these larvae is not confined to the bottom lands but is rather general in fields where a heavy growth of clover or seed clover occurred during the early spring and which were plowed late. As is usually the case, it is reported causing serious damage to the bottom lands along the rivers which were overflowed during the early spring.

Iowa

C. J. Drake (August 2): The southern corn root worm is extremely abundant in southeastern Iowa. On one farm in Lee County 500 acres of corn were badly infested by the beetle. A number of other reports were received from southeastern Iowa. The adult beetles of the first generation are emerging very rapidly at the present time.

Missouri

K. C. Sullivan (July 29): The southern corn root worm is causing unusual damage to the corn, especially the late corn which has been planted in the overflow areas along the Missouri and Mississippi Rivers. In these places the injury is widespread and the loss will be tremendous.

CORN ROOT WORM (Diabrotica longicornis Say)

Illinois

W. F. Flint (August 18): Several reports of serious damage by the northern corn root worm have come in from the central Illinois counties. In all cases the injury occurred where corn had followed corn.

Nebraska

M. H. Suenk (July 25-August 25): Corn root worms have been the outstanding pest to the corn crop of Nebraska during the past month. Complaints of much falling corn due to the destruction of the root system by the western corn root worm began to be received by the end of July, and have kept coming in unabated to the present date. Although this trouble is general over eastern Nebraska, it is worst in the northeastern corner, from Knox, Antelope, Madison, and Dodge Counties east and north to the Missouri River. In many localities in this area hundreds of acres of corn have been seriously injured and felling heavy rains the corn has largely gone down in many fields. Expectations of reduced yields because of this trouble are freely expressed by farmers in this region; one correspondent states that he would not get more than 10 bushels to the acre in a corn-field that yielded 50 bushels to the acre last year. In western, and especially in southwestern Nebraska, similar trouble, due to the Colorado corn root worm, Diabrotica virgifera Lec. a pest not here-

tofore found in Nebraska by us, has been reported during the same period. This infestation and injury seem most severe in Hitchcock and Red Willow Counties, but extend north to Dawes County.

A WIREWORM (Monocrepidius vespertinus Fab.)

- North Carolina J. N. Tenhet (August 18): A month ago this click beetle was present in large numbers in leaf sheaths of corn, and could be readily taken at trap lights. At this date, however, they are becoming very scarce and are difficult to find in any numbers. Evidently the period of adult activity is about at an end for this season.
- Nebraska M. H. Swenk (July 25-August 25): During the first week in August an abundance of beetles of the southern corn wireworm Monocrepidius vespertinus was reported from a cornfield in Clay County.

WIREWORMS (Elateridae)

- Missouri K. C. Sullivan (July 29): It seems that wireworms are causing more than ordinary injury to corn, especially in southern Missouri.

SEED CORN BEETLE (Agonoderus pallipes Fab.)

- Nebraska M. H. Swenk (July 25-August 25): There has been an abundance of the seed corn ground beetle in certain cornfields in eastern Nebraska during the present season.

ALFALFA

PEA APHID (Illincia pisi Kalt.)

- Idaho C. Wakeland (July 29): During the past seasons the pea aphid has been of greater or less abundance in nearly all alfalfa fields. In a few fields in the past it has been observed in countless numbers but the alfalfa had made good growth before the infestations became large and no special injury could be attributed to it. This season alfalfa plants became heavily infested while they were still small, growth of alfalfa was slow, owing to the cool weather, and the aphids killed back the first crop completely in many fields and retarded second growth. In two instances growers applied granular calcium cyanide and report that they are well satisfied with results, for they obtained a first cutting of alfalfa which more than paid for the expense of the treatment. Parasites were quite numerous in the infested fields from the start and before the first crop was ready to cut they had almost completely destroyed the aphids. Lady beetles, an undetermined species of syrphus fly, and two undetermined species of hymenopterous parasites were of greatest importance. It was interesting that control would be established in one field by lady beetles, in another by syrphus flies, etc., but that all species of parasites did not occur abundantly in the same field.

ALFALFA WEEVIL (Phytonomus posticus Gyll.)

Idaho C. Wakeland (July 29): The alfalfa weevil has been more destructive in eastern Idaho than it has been since 1921. In the extreme eastern part of the State, where it has been of no economic importance before, it caused heavy loss on first-crop alfalfa and has greatly retarded the growth of the second crop. In the Grimm seed district of eastern Idaho it was abundant enough in some fields this season to justify spraying but it has been of so little importance during the preceding two years that growers were unprepared for spraying this season. In western Idaho larvae became quite abundant in a few fields and spraying was done. In general, however, infestations were so light that savings resulting from spraying would not have justified the expense.

A SOLDIER BEETLE (Tegrodera latecincta Horn)

California T. D. Urbahms (July 16): On this date J. W. Dixon reported soldier beetles, Tegrodera latecincta, as invading alfalfa fields near the native sage brush, feeding on the young shoots and checking the growth. While the insect is a native and usually present, this was the first time it has been observed as damaging cultivated plants near Manzanar, Inyo County.

ONION THRIPS (Thrips tabaci L.)

Nebraska M. H. Swenk (July 25-August 25): The onion thrips appeared this summer in the alfalfa fields in the valley north of Harrison, Sioux County, where it is apparently interfering very seriously with the prospective alfalfa seed yield, by blasting the alfalfa blossoms.

BLACK BLISTER BEETLE (Epicauta pennsylvanica DeG.)

Nebraska M. H. Swenk (July 25-August 25): The small black blister beetle was reported as common, but doing no great damage, in an alfalfa field in Saunders County during the second week in August.

A MYRIAPOD (Polydesmus serratus)

Nebraska M. H. Swenk (July 25-August 25): The myriapod Polydesmus serratus appeared in unusual abundance in the alfalfa and small grains fields of Merrick and York Counties during the last week in July, where it attracted attention by migrating at night in large numbers, and hiding in the daytime under grain shocks, or any other objects on the ground.

CLOVER

CLOVER SEED MIDGE (Dasyneura leguminicola Linth.)

Idaho C. Wakeland (July 29): Very destructive in clover seed fields in southwestern Idaho this season. In the Emmett and New Plymouth



districts 90 per cent of the first crop of seed was destroyed in some instances and the loss in all fields was heavy. Infestation is great only on 2-year-old fields, amounting probably to not more than 10 per cent in fields seeded in 1926.

CLOVER APHID (Anuraphis bakeri Cowan)

Idaho

C. Wakeland (July 29): Clover fields unusually heavily infested this season forced many growers to cut the first crop for hay and to try to produce seed on second crop. Many fields so handled are in their second seed year and will produce little seed on second crop so that the clover aphid is responsible for a heavy reduction of seed yield. Also, on first-year crops second crop seed will probably be light because of prolonged cool cloudy weather following the clipping of the first crop which permitted second crop to start growth immediately and furnish food and protection for surviving aphids. There will be much "honeydewed" seed this fall.

GRASS

A SPITTLE INSECT (Lepyronia quadrangularis Say)

Mississippi

R. W. Harned (August 22): At the present time the work of spittle insects is conspicuous on Johnson grass and numerous other plants in the vicinity of the A. & M. College. Possibly more than one species is at work, but the only species so far reared to the adult stage has been identified as Lepyronia quadrangularis.

DECIDUOUS - FRUIT INSECTS

MISCELLANEOUS FEEDERS

APHIDAE

South Dakota

H. C. Severin (August 8): Many species of aphids have been unusually abundant this year. The year as a whole has been wetter and cooler than usual.

A GRASSHOPPER (Schistocerca venusta Scudd.)

California

O. E. Essig (August 15): Damage in Paradise Valley to orchards, pear trees in particular

JAPANESE BEETLE (Popillia japonica Newm.)

New Jersey

L. B. Smith (August 30): The Japanese beetle has been found this summer at the following points outside the regulated area: Wilkesbarre, Lehigh and Gettysburg, Pa.; Baltimore, Cambridge and Chesapeake City, Md.; Clayton, Del.; Washington, D. C.; Lindenhurst (L. I.) and Nyack, N. Y.; and Bridgeport, Conn. A few in-



dividual beetles have been found in several freight yards outside the regulated area, the indications being that they were carried there in or on cars of non-agricultural freight from the heavily infested districts. While it is not practicable to change the quarantine line during the scouting season, provision is made to restrict the movement of any nursery stock or farm products from the outside points when the beetle has been found recently established. Most of the finds outside the regulated area have thus far occurred in built up residential areas. Cold, rainy weather during August retarded the activity of the beetles, and may result in greatly reducing the natural spread of the insect during 1927.

Monthly Letter, Bur. Ent., No. 159 (July, 1927): After having been colonized for three years in the Japanese beetle area, the single-generation doxiid parasite Prosenia siberita has finally been recovered at the Moorsetown, N. J., colony center. This is the third imported parasite of the Japanese beetle to have been recovered, the other two being the tachinid Centeter cinerea, which destroys the beetles, and the scoliid Tiphia popillivora, attacking the grub stage.

Monthly News Letter, Bur. Ent., No. 159 (July, 1927): In the present season the colonizations of Prosenia siberita, Ochromaigenia ormioides, Tiphia vernalis, and the so-called "Japanese red-legged" Tiphia have been much larger and more satisfactory than in former years. This achievement has been due in large measure to the excellence of the shipments from Japan, and to the gradual improvement in the technique of handling at the receiving station.

#### THE ANOMALA (Anomala orientalis Waterh.)

New York

Monthly Letter, Bur. Ent. No. 159 (July, 1927): Shipments of Dexia ventralis, a Korean fly attacking a number of scarabaeid larvae, and a Tiphia attacking Anomala, were recently sent from the station at Riverton, N. J. to H. C. Hallock, at Westbury, L.I., for trial colonization in the territory infested with the oriental Anomala and Aserica.

#### RED SPIDER (Tetranychus telarius L.)

Idaho

C. Wakeland (July 29): The attack of the red spider is coming later than usual in orchards but it is now severe. Prune trees are being rapidly defoliated and spraying for control is being done. Since early spring it has been abundant around house foundations and in gardens, causing severe injury to flowers and ornamentals.

#### APPLE

#### APPLE APHID (Aphis pomi DeG.)

New York

C. R. Crosby & assistants (July 15): Serious infestations have

been found all over the State. Many growers are applying special control measures. In general the infestations on pear are light. The fruit on bearing trees is being attacked. (August 13): Injury from the green apple aphid has been common throughout the State. At the present time, because of the activity of parasites and predators, little damage is being done. While this certainly was an outbreak year the damage in general was not quite so serious as in 1918. Commercial orchards show some blackening of the fruit and leaves but it is not likely that much fruit is deformed or will be blackened up by harvest.

Indiana B. A. Porter (August 27): The severe infestations reported last month have mostly subsided, after the aphids had caused severe damage in many orchards.

Idaho C. Wakeland (July 29): The apple aphid is much more abundant in all apple orchards this season than usual. Noticeably few parasites present.

ROSY APPLE APHID (Anuraphis roseus Baker)

Idaho C. Wakeland (July 29): Heaviest infestations of this aphid in apple orchards that have occurred for at least seven years. They remained on the trees until July 1 in some instances and caused a great many shrunken and deformed apples.

WOOLLY APPLE APHID (Eriosoma lanigerum Hausm.)

Indiana J. J. Davis (August 1): The woolly apple aphid is abundant throughout the State but apparently of no economic importance regardless of its frequent occurrence.

H. K. Riley (August 20): The woolly apple aphid was reported from Liberty August 6.

RED-HUMPED CATERPILLAR (Schizura concinna S. & A.)

Massachusetts A. I. Bourne (August 18): Red-humped caterpillars have begun to make their appearance and their conspicuous work has been the cause of numerous complaints. From our observations to date I should figure they were about normal in abundance, infestation not being so serious as was the case last year.

CODLING MOTH (Carpocausa pomonella L.)

Indiana J. J. Davis (August 1): The weather during July was ideal for codling-moth development, and the infestation in southern Indiana is again threatening

B. A. Porter (August 27): Weather conditions continue unfavorable to the rapid development of the codling moth. Indications are

that the third brood will be extremely light. In orchards where the spraying has been poorly done the worms are moderately abundant, but growers who have sprayed with reasonable thoroughness have had very much less difficulty in controlling the worms than was experienced in 1925 and 1926.

Georgia

R. M. Seeley (July 29): The codling moth is doing unusually heavy damage to apples in northern Georgia.

Illinois

W. P. Flint (July 19): Adults of the second brood codling moth started emerging in southern Illinois about July 6. Emergence has been rather slow in this section. In central Illinois, emergence started on July 14. According to our observations at present, the conditions in the commercial orchards of the State are much better than was the case one year ago. The weather of the season has been favorable to the development of the codling-moth larvae and considerably greater effort has been made on the part of orchardists to keep down this insect. In poorly sprayed orchards, however, the present infestation, which is by first brood larvae, will run from 10 to 18 per cent, according to figures gathered by Mr. Bigger in the orchard sections of western Illinois.

Idaho

C. Wakeland (July 29): The late, cool season caused an exceptionally light infestation of first-brood larvae. First-brood larvae are still emerging in large numbers from the apples, which means there will be a late infestation of second-brood larvae. Because of spray-residue problem most growers will not spray after August 1, so it appears probable that there will be a heavy infestation of late worms.

APPLE AND THORN SKELETONIZER (Hemerophila pariana Clerck)

New York

C. R. Crosby and assistants (August 16): The infestation in the Hudson Valley is confined almost exclusively to neglected orchards. Even here the infestation is light. Injury is noticeable in the southern part of Wayne and Monroe Counties. Many orchards which are neglected or poorly cared for are found infested in Tompkins, Cayuga, Cortland, Madison, Schuyler, Steuben, Seneca, Ontario, and Yates Counties.

EASTERN TENT CATERPILLAR (Malacosoma americana Fab.)

Pennsylvania

F. F. Smith (August): In Philadelphia vicinity, the species continued to be present in large numbers during 1927. Some reason for this should be found. From material reared out during 1925 it would seem that secondary parasites were a factor in limiting the numbers of primary parasites



APPLE MAGGOT (Rhagoletis pomonella Walsh)

- Massachusetts A. I. Bourne (August 13): The railroad worm to date does not appear to be quite so abundant as last year; nevertheless, early varieties of fruit which are being harvested show considerable infestation. It is a little too early to forecast what condition will be on the main and late season varieties. Judging from the flies it will not be quite so severe an infestation.
- New York C. R. Crosby and assistants (August 16): Emergence of flies stopped about August 6 in the Hudson River Valley. Emergence started later this year than common and according to records made from flies taken in cages the peak of the emergence was reached about July 26 in the Champlain Valley, about July 16 to 22 in Greene County, while in Orange and Ulster Counties flies were found most commonly towards the end of July.

APPLE LEAFHOPPERS (Empoasca mali LeB. et al.)

- Massachusetts A. I. Bourne (August 18): Apple leafhoppers have shown themselves to be considerably more abundant than usual and in some orchards are causing a considerable amount of damage.
- Connecticut Philip Garman (August 24): The apple leafhopper is reported to be very bad in several orchards in New Haven County.
- Ohio E. W. Mendenhall (August 9): The apple leafhopper is quite bad in the nurseries in southwestern Ohio and does some damage to the leaves.

LEAF CRUMPLER (Mineola indigenella nebulella Riley)

- Kansas R. L. Parker (August 3): The leaf crumpler has been reported attacking apple.
- Mississippi R. W. Harned (August 22): Apple leaves injured by the apple leaf crumpler were received from Test Point on July 30 and from Buleville on August 1.

A CHRYSOMELID BEETLE (Rhabdonterus vicinos Oliv.)

- New York M. E. Buckman (July 23): A small amount of injury from this insect was found on apple fruits in several orchards.

YELLOW-NECKED APPLE CATERPILLAR (Datana ministra Drury)

- Indiana J. J. Davis (August 1): The yellow-necked apple caterpillar was common on apple at Williamsport July 26.



CECROPIA MOTH (Samia cecropia L.)

Indiana H. K. Riley (August 20): Larvae of Samia cecropia stripped leaves on an apple tree at Sheridan.

EUROPEAN RED MITE (Paratetranychus pilosus G. & F.)

Connecticut Philip Garman (August 24): Some apple orchards show serious browning of foliage. Winter eggs are being laid rapidly.

New York C. R. Crosby and assistants (August 16): Injury from this pest is more serious than last year. Neglected or poorly sprayed orchards show distinct bronzing of the leaves. Injury to apple is more common and serious in the Hudson River Valley.

Delaware H. L. Dozier (July 20): The European red mite is very abundant in several commercial apple and peach orchards near Camden and Newark. Leaves were grayed by this date.

PEAR

PEAR PSYLLA (Psylla pyri L.)

Massachusetts A. I. Bourne (August 18): The pear psylla has been unusually abundant throughout the entire State this season. As I stated in one of my earlier reports, we encountered such unfavorable weather conditions that the early sprays which ordinarily hold this pest in check were of comparatively little value, so that the pest has persisted in considerable abundance throughout the summer.

Connecticut Philip Garman (August 24): A very severe outbreak throughout the State. The growers have obtained good control.

New York C. R. Crosby and assistants (August 13): Serious injury has been reported from all pear-growing sections in the State. It is an outbreak year. Partial defoliation of trees and considerable smutting of fruit and foliage is a common sight. Where two sprays have given control for the past two or three years, it has been necessary to apply about four sprays to give control this season.

BEAN THRIPS (Heliothrips fasciatus Perg.)

California T. D. Urbahns (July 19): On July 19 the bean thrips was appearing in great numbers on pear trees in the Monticello district, Napa County, where they had severely marked the fruit and caused drying of the foliage during the season of 1926.

E. C. Essig (August 15): Produced a blackening of the leaves locally known as "black leaf." Many pear trees partially or entirely defoliated, which exposes the fruit to sunburn.

PEAR SLUG (Caliroa cerasi L.)

Ohio

E. W. Mendenhall (August 23): The cherry and pear trees on the city lots, especially in Newark, are badly infested with slugs.

PEACH

PEACH TWIG BORER (Anarsia lineatella Zell.)

California

T. D. Urbahns (July 22): On July 22 field observations made in connection with the peach twig borer in the large canning peach centers of Sutter and Yuba Counties show that the infestation is unusually light during the present season, most of the orchards being practically free from larvae at the present time.

ORIENTAL FRUIT MOTH (Laspeyresia molesta Busck)

Connecticut

Philip Garman (August 24): A general increase in abundance of the oriental peach moth has been noted in New Haven, Fairfield, and Hartford Counties. The insect, while not more abundant in any one orchard, shows a general increase and occurs in abundance in more orchards than heretofore. More than 50 per cent of the second brood parasitized by Macrocentrus sp.

New York

C. R. Crosby and assistants (August 13): Injury to the tips of shoots of peach is fairly common in Dutchess, Ulster, Orange, and Rockland Counties. Fruit injury is becoming apparent.

Delaware

H. L. Dozier (August 1): Wormy fruit from oriental peach moth work is common on peaches.

Maryland

A. L. Quaintance (August 29): Earlier in the season very heavy twig infestation was observed but due to cool weather the brood that should be infesting fruit now did little damage.

Georgia

O. I. Snapp (July 28): The heaviest infestation that has been recorded in this State to date was observed today at the Georgia Experiment Station. Seventy-five per cent of the twigs in a variety peach orchard showed either old or fresh oriental peach moth work. In this orchard are varieties of peaches that ripen up to the time of frosts, and nearby are apples and pears. These late fruits have evidently furnished a host for the 1st generation. A commercial peach orchard 2 miles east of Hampton showed an average infestation of 20 per cent of the twigs on this date. Some of the trees in this orchard have as high as 80 per cent of the twigs injured, while the injury on others was as low as 5 per cent. Fruit from this orchard had also shown a number of larvae. There were apple trees adjoining, and doubtless these furnished hosts for the late generations last year. The oriental peach-moth infestation in this commercial orchard is three times as great this year as last

Delaware

H. L. Dozier (September 1): Serious damage to peaches in Bridgeville section by the oriental peach moth. There are apparently two broods.

Ohio E. W. Mendenhall (August 20): The oriental peach moth is quite bad in Montgomery County this year.

PLUM CURCULIO (Conotrachelus nenuphar Hbst.)

Delaware H. L. Dozier (August 1): Wormy fruit from the curculio on peaches is common.

Georgia R. M. Seeley (July 29): Plum curculio infestation has been reported as heavy on peach throughout the State.

CHERRY

LESSER PEACH BORER (Sesia pictipes G. & R.)

Ohio E. W. Mendenhall (August 9): I find a number of cherry trees in Columbus affected with the lesser peach borer.

SHOT-HOLE BORER (Scolytus rugulosus Ratz.)

New York M. E. Buckman (August 4): Serious injury has been found in a young cherry orchard which was apparently in good health.

PRUNE

PEACH BORER (Aegeria exitiosa Say)

Idaho C. Wakeland (July 29): The peach borer has been very destructive to prune orchards in the Boise-Meridian district this spring.

BLACKBERRY AND LOGANBERRY

BLACKBERRY MITE (Eriophyes sp.)

California E. O. Essig (August 15): The blackberry mite was found not only on Himalaya blackberry, but for the first time on Mammoth blackberries and loganberries.

RASPBERRY FRUIT WORM (Eyturus unicolor Say)

Washington J. F. Graf (July 25): Several days ago we learned that commercial canneries were rejecting loganberries in Kent and Puyallup districts, on account of worm infestation. Requested immediate investigation by Seattle and they now report all loganberry fields in Puyallup and Kent districts quite badly infested, varying from slight to 7 per cent. Further reports indicate serious infestation in Vacho Island, Everett, and Bellingham districts. Cannerymen in all districts refusing lots except those entirely free from worms. Every one greatly concerned on account of probability of complete financial loss. Many growers have stopped picking and rejected lots are being held by growers and canners with disposition undecided. Observations have so far shown no wormy berries being barreled. Undoubt-



edly others will attempt pressing wormy material for juice jelly making. About two weeks of the season still remains.

GRAPE

GRAPE LEAFHOPPER (Erythroneura comes Say)

- Delaware H. L. Dozier (July 30): The grape leafhopper is now becoming very abundant in a number of commercial vineyards. This pest has been present this season only in limited numbers, in marked contrast to last season when they caused great damage and worry by their vast numbers.
- Ohio E. W. Mendenhall (August 9): I find the grape leafhopper general over the State again this year.
- South Dakota H. C. Severin (August 8): The grape leafhoppers are present in unusual abundance in eastern South Dakota.

GRAPE PHYLLOXERA (Phylloxera vitifoliae Fitch)

- South Dakota H. C. Severin (August 8): The grape phylloxera is present in usual abundance.

GRAPE BERRY MOTH (Polychrosis viteana Clem)

- Delaware H. L. Dozier (August 4): The grape berry moth is threatening the total loss of this year's crop of grapes on two commercial vineyards near Dover. This insect has just begun to attract attention in this State during the past two seasons and promises to become an outstanding grape pest. This season the young larvae first started hatching about June 23 and pupated between July 20 and 30. By the latter date, few worms were left in berries and on August 4 the first adults appeared for the second generation.

GRAPE LEAF SKELETONIZER (Harrisiana americana Guer.)

- Ohio E. W. Mendenhall (August 13): I find an outbreak of this pest in Miami County.

GRAPE COLASPIS (Colaspis brunnea Fab.)

- Arizona Arizona News Letter (July 31): Grape leaves were badly eaten and perforated by the grape leaf beetle, in several places in the Salt River Valley. Probably the most severe injury was noted in a small planting serving as an arbor.

A THrips (Drepanothrips reuteri Uzel)

- California T. D. Urbahn (July 8): On July 8 special field observations were made to determine the abundance of Drepanothrips reuteri Uzel.



in the Sacramento, Elk Grove and Lodi grape districts where it severely injured grapes in 1926. No indication of injury during the season of 1927 up to date.

PECAN

PECAN LEAF CASE BEARER (Acrobasis nebulælla Riley)

Alabama J. M. Robinson (August 16): Acrobasis nebulælla is particularly active in Baldwin and Mobile Counties attacking pecan trees.

HICKORY NUT CURCULIO (Conotrachelus affinis Boh.)

Mississippi R. W. Harned (August 22): Pecans that had fallen from a Stuart pecan tree at Sunflower on July 23 were found to contain larvae or grubs of curculios belonging to the genus Conotrachelus. This may be the hickory nut curculio, Conotrachelus affinis.

FLAT-HEADED APPLE-TREE BORER (Chrysobothris femorata Oliv.)

Arizona Arizona News Letter (July 31): The flat-headed borer was found to have completely girdled some young pecan trees in a planting northeast of Phoenix. The trees were two years old from planting and bore evidence of having been attacked by the insects during the first season in the orchard.

WALNUT CATERPILLAR (Datana integerrima G. & R.)

Georgia R. M. Seeley (July 29): The black walnut caterpillar has been reported as unusually abundant throughout the State, especially on pecan and hickory trees.

A CHRYSOMELID BEETLE (Metachroma pallidum Say)

Alabama R. W. Harned (August 22): On April 3, Mr. R. C. Price, formerly connected with the Plant Board of Mississippi, mailed to us some beetles collected on pecan at Mobile. These insects were mailed to Dr. L. O. Howard, and were determined by W. S. Fisher as Metachroma pallidum.

FIGS

SAN JOSE SCALE (Aspidiotus perniciosus Comst.)

Georgia Snapp and Swingle (August 2): The San Jose scale has been found on the fruit of fig bushes in numbers sufficient to cause considerable damage. The insect apparently is not attacking the bush itself, but only the fruit. Spots on the fruit caused by this insect have been noticed for several years.

A BEALYBUG (Pseudococcus sp.)

Mississippi

K. L. Cockerham (August 16): This insect is very abundant at this season of the year on figs. We have had quite rainy weather this summer which has no doubt been responsible for the great number of these insects. There is rarely a summer passes that we do not have some of them.

A DARKLING BEETLE (Metoponium abnorme Lec.)

California

T. D. Urbahns (July 21): E. P. Roullard reported darkling beetles Metoponium abnorme attacking figs on the drying trays in Fresno County. Damage was reported as quite severe. On July 14, darkling beetles were very abundant in the apricot drying yards in the vicinity of Marced and feeding on the fruit.

CITRUS

CITRUS THRIPS (Euthrips citri Moulton)

California

E. A. McGregor (August 7): The citrus thrips is unusually severe this year. Many unsprayed groves are showing thrips scarring to the extent of 60 to 80 per cent of the crop. The resulting lowering of the grade will mean a very material loss to growers who failed to follow proper control practice. Even groves the spraying of which was ill-timed are going to pay the penalty this year.

AN ANT (Solenopsis sp.)

California

Monthly News Letter of the Los Angeles Hortic. Comm. (August 15): A medium sized bi-color ant, Solenopsis sp., commonly known as the fire ant on account of the burning sensation resulting from its bite, has, according to H. M. Armitage, Deputy Horticultural Commissioner, Los Angeles County, recently been observed as causing serious injury to tree citrons in the La Habra Heights section east of Whittier. Approximately six acres of five-year old trees were found to be infested, the ants feeding on the blossoms and stems of newly setting fruit as well as on the bark of some of the smaller and more tender branches. The manager for the property stated that practically the entire first crop of fruit for this season had already been destroyed. While this ant is of more or less general distribution throughout southern California, and is rather omnivorous in its feeding habits, this is the first record of its being injurious to an economic host in this country. Control measures are being worked out by the County Horticultural Commissioner's Office in cooperation with the owner's agents.

GRASSHOPPERS (Acrididae)

Arizona      Arizona News Letter (July 31): Grasshoppers were found to have injured citrus trees during July. Cases were observed where the major part of the foliage had been eaten away by the grasshoppers. In several instances the twigs and branches were girdled by the eating habits of the hoppers.

CICADA (Species undetermined)

Arizona      Arizona News Letter (July 31): Cicadas injured a number of newly set citrus trees in a number of plantings in the Salt River Valley. The injury is caused by the female cicada in the act of depositing eggs in the young tender twigs. Sometimes the twig growth is entirely killed but more often is so weakened that it easily breaks at the point of injury.

TRUCK - CROP INSECTS

MISCELLANEOUS FEEDERS

STALK BORER (Papaipema nebris nitela Guen.)

Connecticut

W. E. Britton (August 24): The stalk borer has been reported from Trumbull, Hamden, Higganum, Salem, South Britain, North Haven, and Pamfret. It attacks dahlias as well as corn.

New York

P. J. Chapman (July 25): From the number of specimens sent in and from observations made in various parts of the State, the common stalk borer appears to be much more common and injurious this season than last. It has been reported attacking numerous kinds of plants.

Indiana

J. J. Davis (July 30): The stalk borer continues as a common pest. The specimens now being received are noticeably larger and lack the conspicuous stripes of the younger larvae. Reports since July 20 have come from Pierceton, Ft. Wayne, Hartsville, Richmond, La Fayette, Boswell, Amboy, Logansport, and Liberty. While most of the reports indicate corn as the host, a few reports relate to tomato, beans, and hollyhock, etc.

H. K. Riley (August 20): The stalk borer continues to be a common pest, the larvae sent in being almost full-grown. Reports have come in from several localities since August 1.

Illinois

W. P. Flint (July 19): From ten to fifteen letters concerning this insect have been received daily for the past month or six weeks. In several sections of the State, particularly the northcentral part, the insect is certainly considerably more abundant than usual. Examinations of the marginal rows of cornfields in central Illinois show a damage of from 2 to 20 per cent caused by this insect. In most cases only a small fraction of one per cent of the corn is injured in the center of the field. In some cases, however, where fields were quite grassy and weedy in the fall of 1926, damage by this insect would be found all over the field. The larvae are approaching maturity in the southern part of the State. (August 18): Specimens of this insect are still being received in considerable numbers, and from a very wide variety of plants. The larvae are practically full-grown at the present time, but no pupae have been found to date.

South

Dakota

H. C. Severin (August 5): While the common stalk borer was probably unusually abundant this year, many of our inquiries are due to publicity of the European corn borer.

Missouri

K. C. Sullivan (July 29): The stalk borer has been unusually bad throughout the entire State. Its attack on growing corn has been



very noticeable and due to the fact that farmers are on the lookout for the European corn borer, we receive from one to twelve specimens almost every day.

Nebraska M. H. Swenk (July 25-August 25): During the period covered by this report, the presence of the stalk borer in both field corn and sweet corn stalks has been very frequently reported. These reports have come from the same area as the complaints of injury mentioned in my last report. About 85 per cent of the complaints that have been received since July 25 have related to infestation of corn-stalks, the rest to miscellaneous thick-stemmed plants, including certain weeds such as sunflower and wild hemp. The specimens sent in during the past week have been mostly pupae rather than full-grown larvae as was previously the case.

BLISTER BEETLES (Meloidae)

Maryland J. A. Hyslop (August 28): Severely damaging Swiss chard in Montgomery County.

Georgia R. M. Seeley (July 29): Blister beetles, especially Epicauta pennsylvanica DeG. and E. vittata Fab., have been unusually abundant.

Indiana H. K. Riley (August 20): Blister beetles were found feeding on dahlias at North Vernon, July 29, and on potatoes and tomatoes at Columbus, August 5.

Alabama J. M. Robinson (August 1): Blister beetles continue to be abundant.

MARGINED BLISTER BEETLE (Epicauta cinerea marginata Fab.)

Georgia O. I. Snapp (August 11): These blister beetles are very abundant and doing considerable damage to tomatoes and Irish potatoes at Smarrs.

Indiana J. J. Davis (August 1): Blister beetle: All seen are margined blister beetles, reported damaging potato at Kempton, July 27, and during the past few days, damaging various vegetables and flower gardens.

WHITE GRUBS (Phyllophaga spp.)

Ohio E. W. Mendenhall (August 5): There are many complaints of damage to strawberry plants by the white grubs this year, many strawberry beds being ruined.

South Dakota H. C. Severin (August 8): Reports of damage by white grubs to strawberry over scattered areas have been reported.

TARNISHED PLANT BUG (Lygus pratensis L.)

New York

P. J. Chapman (July 30): Serious injury to susceptible crops has been reported from all parts of the State. It is likely that this pest is more common than last year.

WIREWORMS (Elateridae)

Idaho

C. Wakeland (July 29): As usual, during cool, moist springs, wireworms have been more destructive and have caused injury longer this season than on the average. They are a serious limiting factor in the production of corn, potatoes, and beans especially, in many localities, and are causing havoc generally in gardens.

POTATO AND TOMATO

COLORADO POTATO BEETLE (Leptinotarsa decemlineata Say)

Idaho

C. Wakeland (July 29): Two outbreaks of the Colorado potato beetle have been combated in southern Idaho this season. Outbreaks in 1924 and 1925 had been stamped out and the same methods employed then have been followed this season. The large commercial production areas of southern Idaho are free from this pest and all concerned are endeavoring to keep them so. Farmers, the State Department of Agriculture, and the University of Idaho are cooperating in the work. Experience leads us to believe that if we know of the infestation, soon enough we can stamp it out completely and keep southern Idaho free from potato bugs indefinitely. Investigations are being made to determine the source of infestation.

TOMATO WORM (Protoparce sexta Johan.)

Illinois

C. C. Compton (August 12): The tomato worm is more numerous than usual. No severe injury is being done because of the heavy growth of tomato vines this year. Parasites are noticeably absent.

LESSER BULB FLY (Eumeris strigatus Fallen)

Washington

R. L. Webster (August 3): Damage to a 4-acre potato field was reported by Elmer E. Osborn, Ferndale, to the Experiment Station at Pullman. I visited this field July 21 in company with C. F. Doucette, of the Bureau. In no case did we find any maggots in growing tubers, although numerous larvae were seen in the old rotting seed pieces. This field was located several miles from any commercial bulb plantings.

POTATO APHID (Illinoia solanifolii Aehm.)

New York

C. R. Crosby and assistants (July 15): On Long Island a number of important infestations have been found and control measures are

being applied. It seems likely that serious loss will result. Moderately serious infestations have been found in Orange and Ulster Counties.

POTATO LEAFHOPPER (Empoasca fabae Harr.)

South Dakota H. C. Severin (August 8): Injury by the potato leafhopper is usually severe over the State and this year is no exception.

CABBAGE

IMPORTED CABBAGE WORM (Pieris rapae L.)

Ohio E. W. Mendenhall (August 18): The cabbage butterfly is very bad this year again and doing considerable damage to cabbage over the State.

Indiana H. K. Riley (August 20): Cabbage worms were reported from Indianapolis August 1.

Illinois C. C. Compton (August 10): The imported cabbage worm is now appearing in large numbers about three weeks later than usual in the Chicago trucking district.

HARLEQUIN BUG (Murgantia histrionica Hahn)

Georgia R. M. Seeley (July 29): The harlequin bug is unusually abundant throughout the State and doing serious damage.

Missouri K. C. Sullivan (July 29): Many reports from the southern part of Missouri are being received for assistance with the harlequin bug which is unusually abundant at this time.

Alabama L. W. Brannon (August 12): This insect is continuing to be one of the worst pests in this district (Birmingham), and adults and nymphs are doing serious damage to collards, cabbage, and turnips.

Mississippi R. W. Harned (August 22): The harlequin bug continues to be quite serious on cabbage and collard plants in different sections of the State. On August 12 specimens of this insect were sent to us from Handsboro in Harrison County with the information that they had completely destroyed a crop of collards. Serious damage to collards was reported at Starkville on August 10, Booneville on August 7, and Crawford on August 19. Specimens collected on cabbage were received from Como on August 13.

CABBAGE LOOPER (Autographa brassicae Riley)

Mississippi R. W. Harned (August 22): Specimens that have been tentatively identified as the cabbage looper, Plusia brassicae, have been received from two localities in Yazoo County, one locality in Humph-

reys County, and one locality in Sharkey County. In each case they were collected on cotton. One moth was reared and definitely determined by Dr. Dyar as Plusia brassicae.

FALSE CHINCH BUG (Nysius ericae Schill.)

California A. C. Davis (August 1): The bugs seem to be confined to fields in which the weeds are still standing. Have detected them on cabbage plants only as yet, outside of weed fields. They occur in uncontrollable numbers.

DIAMOND-BACK MOTH (Plutella maculipennis Curt.)

Kansas R. L. Parker (August 1): This insect undoubtedly has been infesting cabbage in this locality (Manhattan) for two or three years. It is the most serious pest for the growers at this time of the year.

TURNIP WEBWORM (Loxostege sp. ?)

Alabama J. M. Robinson (August 1): The turnip webworm is beginning to make its appearance in destructive numbers in Conecuh County, attacking collards and cabbage.

CABBAGE WEBWORM (Hellula undalis Fab.)

Mississippi R. W. Harned (August 22): Specimens of the cabbage webworm were received on August 13 from Como where they were reported as damaging cabbage plants.

CABBAGE APHID (Brevicoryne brassicae L.)

Nebraska M. H. Swenk (July 25-August 25): Reports of injury to early cabbage by the cabbage aphid came to hand during late July.

TURNIP APHID (Phopalosiphum pseudobrassicae Davis)

Nebraska M. H. Swenk (July 25-August 25): During early August reports of injury to early cabbage by the turnip aphid were received.

STRAWBERRY

STRAWBERRY LEAF ROLLER (Ancylis comptana Frohl.)

Nebraska M. H. Swenk (July 25-August 25): The strawberry leaf roller was found doing damage in strawberry beds in Richardson County late in July.

Idaho C. Wakeland (July 29): The strawberry leaf roller is probably the most destructive pest of strawberries in Idaho. It occurs in all parts of southern Idaho and has caused complete loss in some fields of small area.



A GELECHIID MOTH (Anacamptis fragariella Busck)

California T. D. Urbahns (July 12): On July 12 C. K. Turner reported western strawberry leaf roller, Anacamptis fragariella, as destroying strawberry plants at Alta, Placer County.

STRAWBERRY CROWN BORER (Tyloderma fragariae Riley)

Nebraska M. H. Srenk (July 25-August 25): Strawberry beds in the vicinity of Scribner, Dodge County, were found badly injured by the strawberry crown borer during the second week in August.

STRAWBERRY WHITEFLY (Trialeurodes packardii Morrill)

North W. A. Thomas (August 10): Practically every strawberry field in Carolina (Chadbourn) shows a more or less heavy infestation of this insect. Few adults are present at this time, while many of the older leaves are clustered with developing young. The plants are showing no serious effects from the attack.

STRAWBERRY ROOT APHID (Aphis forbesi Weed)

Nebraska M. H. Srenk (July 25-August 25): The strawberry root aphid was reported damaging strawberry beds in the vicinity of Scribner, Dodge County, during the second week in August.

A WIREWORM (Monocrepidius bellus Say)

North J. N. Tenhet (August 13): This tiny click beetle is present in Carolina considerable numbers under dying strawberries. Strawberry plants are being killed by drought and attacks of Paria canella, and it is still undetermined whether or not Monocrepidius bellus is also attacking the strawberries.

TERMITES

North W. A. Thomas (August 22): This insect has been observed injuring Carolina strawberry plants in many fields in this section (Chadbourn) during the past month. The injury in most cases is confined to newly-cleared fields where more or less decaying wood particles are found.

BEANS

MEXICAN BEAN BEETLE (Epilachna corrupta Muls.)

New York Rodney Cecil (August 4): The Mexican bean beetle is in New York State at North Collins and Gowanda. The infestation at North Collins is light but well established in a 15-acre field of refugee green pods. Larvae, pupae, and newly emerged adults were found.

N. F. Howard (August): The Mexican bean beetle has been found in the western part of the State.

Pennsylvania N. F. Howard (August): The Mexican bean beetle has been found along the northern border and eastward to Tioga, Center, and Huntington Counties about half way across the State and along the southern border to Lancaster County.

J. N. Knull (August 2): The Mexican bean beetle was found in some of the northern and western counties when a survey was made.

Ohio E. W. Mendenhall (August 6): The Mexican bean beetle is doing a lot of damage in Montgomery and Miami Counties. Many of the bean patches are riddled. (August 23): The Mexican bean beetle is very abundant in Licking County and is as far north as Knox County. The greatest destruction was done earlier in the season.

Indiana J. J. Davis (August 1): Injury by the Mexican bean beetle has been unusually severe the past month. Reports come from Indianapolis and Richmond on the north and from Owen, Martin, and Dubois Counties on the west.

H. K. Riley (August 20): The Mexican bean beetle was reported from Elmore July 30.

North Carolina R. W. Leiby (August 19): This insect is again being complained of after a quiet lapse of about five weeks during which time the hot weather may have held it in subjection.

R. W. Leiby and C. E. Brannon (August): The Mexican bean beetle has been reported from Duplin, Pitt, and Northam and several counties westward.

South Carolina C. O. Eddy (August): The Mexican bean beetle has been reported from the following counties: Kershaw, Richland, Calhoun, and Lancaster.

Georgia R. M. Seeley (July 29): The Mexican bean beetle has been doing very serious damage throughout the northern half of the State. The southern half of the State is apparently free from this beetle except an area of 10 miles around Thomasville in the extreme southern part of the State.

Alabama J. M. Robinson (August 1): Mexican bean beetles are active in the valleys of northeastern Alabama.

L. W. Brannon (August 12): The Mexican bean beetle has been seriously damaging bush beans, pole beans, and pole lima beans in the vicinity of Birmingham. Beans planted in corn have been severely damaged and all stages of the insect were found in a field of soy beans which was near a patch of badly infested pole beans. In this

district I have seen several patches of pole lima beans which were completely defoliated. In badly infested fields, pupae and egg masses can be found on morning glory. Third-generation beetles emerged in the life-history cages August 17.

Mississippi R. W. Harned (August 22): Reports have been received at this office in regard to serious damage to garden beans by the Mexican bean beetle in the northeastern corner of the State. Specimens have been received from Alcorn, Tishomingo, and Prentiss Counties.

WESTERN SPOTTED CUCUMBER BEETLE (Diabrotica soror Lec.)

California T. D. Urbahns (July 18): On July 18, C. R. Sanburn reported cucumber beetles, Diabrotica soror, attacking beans in Marin County and reported loss in some cases as 20 per cent.

BEAN APHID (Aphis rumicis L.)

Nebraska M. H. Swenk (July 25-August 25): The bean aphid was reported as injurious to beans and nasturtiums from various parts of the State the second week in August.

LEAFHOPPERS (Jassidae)

Indiana H. K. Riley (August 20): Leafhoppers have been reported damaging beans at Aurora August 6.

SEED CORN MAGGOT (Hylemyia cilicrura Rond.)

Idaho C. Wakeland (July 29): The seed corn maggot has caused the replanting of many acres of beans in the commercial bean fields in the Twin Falls district. It has also caused some injury to the potato seed pieces in some fields. This insect appears to be of importance here only during springs of more than usual moisture and prolonged cool weather.

CUCUMBERS AND MELONS

STRIPED CUCUMBER BEETLE (Diabrotica vittata Fab.)

Indiana H. K. Riley (August 20): Cucumber beetles were reported as damaging cucumber vines at Roanoke August 8, and same report from Rockville, August 10.

Illinois C. C. Compton (August 2): The striped cucumber beetle was less destructive than usual this year. It appeared later in the season after the vines had made considerable growth.

Kansas R. L. Parker (August 1): Diabrotica vittata has been reported as very abundant at Wamego, attacking cucumbers.

SQUASH LADYBIRD (Epilachna borealis Fab.)

North Carolina J. N. Tenhet (August 4): Melons completely defoliated near Chad-bourn but the crop was practically made before defoliation. Several acres observed to be infested.

PICKLE WORM (Diaphania nitidalis Stoll)

Indiana H. K. Riley (August 20): The pickle worm was reported as heavily infesting pickles at Logansport August 18.

Georgia R. M. Seeley (July 29): The pickle worm is very serious in northern Georgia.

Alabama J. M. Robinson (August 16): The pickle worm and cantaloupe caterpillars are very active and destructive at the present time.

Mississippi K. L. Cockerham (July 30): Late crops of cantaloupes, cucumber, and squash are very seriously attacked by this insect. So severe is the injury that it is almost impossible to secure a single sound fruit.

MELON APHID (Aphis gossypii Glov.)

Nebraska M. H. Swenk (July 25-August 25): The melon aphid was more than usually injurious to cucumbers and melons during the present summer, many complaints having been received during the period covered by this report.

Kansas R. L. Parker (August 1): The melon aphid was found attacking cucumbers at Miltonville.

SQUASH

SQUASH BUG (Anasa tristis DeG.)

Massachusetts A. I. Bourne (August 18): Squash bugs, from reports which have come in and from our own observations, appear to be considerably less abundant than last year.

Georgia R. M. Seeley (July 29): The squash bug is unusually numerous throughout Georgia, especially on melons.

Nebraska M. H. Swenk (July 25-August 25): At least the usual amount of injury by the squash bug was reported during late July and August.

SQUASH BORER (Melittia satyriniformis Hüb.)

Indiana J. J. Davis (August 1): The squash vine borer was reported injuring squash at South Bend July 25, and pumpkin at Muncie July 27.



H. K. Riley (August 20): The squash borer was reported attacking squash at Fort Wayne and Peru August 5.

Nebraska

M. H. Srenk (July 25-August 25): At least the usual amount of injury by the squash borer was reported during late July and August.

MELON APHID (Aphis gossypii Glov.)

Mississippi

K. L. Cockerham (July 30): In a late crop of squash planted in our experimental plot, every hill was rather heavily infested with an aphid, probably the melon aphid. Earlier crops did not seem to be damaged so much by this insect.

ONIONS

ONION THRIPS (Thrips tabaci L.)

Idaho

C. Wakeland (July 29): Commercial onion plantings and seed fields are very heavily infested and in some fields severe damage is being caused.

ONION MAGGOT (Hydomyia antiqua Meig.)

Illinois

C. C. Compton (August 11): The second brood of onion maggots did not cause any commercial loss this year, largely because of the dry weather which is unfavorable to the development of the insect.

EGGPLANT

FLEA BEETLES (Halticinae)

Mississippi

R. W. Harned (August 22): Eggplant plants that had undoubtedly been seriously injured by flea beetles, although none of these insects were present, were received from Pascagoula July 30.

EGGPLANT FLEA BEETLE (Epitrix fasciata Cr.)

Alabama

L. W. Brannon (August 12): This species of flea beetle has been doing considerable damage to eggplants in this locality (Birmingham).

EGGPLANT LACE BUG (Gargaphia solani Hied.)

Mississippi

R. W. Harned (August 22): Specimens of lace bugs that have been tentatively identified by J. M. Longston as Gargaphia solani on eggplant were received from Horn Lake July 28.

A WEEVIL (Anthonomus nigrinus Boh.)

Mississippi

R. W. Harned (August 22): Early in June weevils were received from Marion with the following statement "They work on the tender buds of eggplants. Some of the buds are dropping." These weevils

were sent to Dr. L. O. Howard and were identified by W. S. Fisher as Anthonomus nigrinus. On August 1 weevils identified by Mr. Fisher as Anthonomus nigrinus were sent to us from Hattiesburg where they were reported as "knocking the blooms off late eggplants."

RED SPIDER (Tetranychus telarius L.)

Ohio E. W. Mendenhall (August 11): Eggplants in southwestern Ohio are quite badly infested with the red spider.

FIRE ANT (Solenopsis geminata Fab.)

Mississippi M. R. Smith (August 1): R. P. Colmer sent to this office recently some eggplants which he stated had been seriously injured by the fire ant. These ants had tunneled out the stems of the plants and gnawed holes in the petioles of the leaves.

SWEET POTATO

BANDED CUCUMBER BEETLE (Diabrotica balteata Lec.)

Mississippi K. L. Cockerham (July 30): This insect continues very numerous in sweet-potato fields around Biloxi. In walking across a field, great numbers of beetles fly out around one's feet. A few sweeps of a collecting net brings in hundreds of beetles. The foliage shows distinct feeding marks. Numerous other crops and weeds are also being attacked by this beetle.

SEMITROPICAL ARMYWORM (Prodenia eridania Cram.)

Mississippi R. W. Harned (August 22): Specimens of the semitropical armyworm were received on August 16 from Poplarville where they were reported as causing serious damage to sweet potato plants. Specimens of this species collected on cotton were received from Eden August 13. The determinations were made by S. E. Crumb of the Bureau of Entomology.

TURNIP

TURNIP APHID (Rhopalosiphum pseudobrassicae Davis)

Alabama L. W. Brannon (August 12): This species is doing considerable damage to turnips in this locality (Birmingham). I have seen several fields of turnips that were so seriously damaged that they were unmarketable.

PARSNIP

PARSNIP WEBWORM (Depressaria heracliana DeG.)

- New York E. J. Hambleton (August 13): Injury by the parsnip webworm ran high in one planting of parsnips, which consisted of several acres.
- Indiana J. J. Davis (July 19): The parsnip webworm was received from various parts of the State as possibly the European corn borer. It was always sent in from wild parsnip.

S O U T H E R N F I E L D - C R O P I N S E C T S

COTTON

BOLL WEEVIL (Anthonomus grandis Boh.)

- North Carolina R. W. Leiby (August 15): Damage is increasing throughout the cotton section. In the southern cotton counties from the coast to the middle Piedmont, the average infestation of squares appears to be about 40 per cent. In the upper Coastal Plain counties the average infestation is about 8 per cent, with a heavier infestation expected. (August 20): In the southern and eastern cotton counties infestation is generally complete. Elsewhere complete infestation should take place in another week. The entire top crop has been destroyed by the weevil, and the middle crop of bolls is threatened. There are more weevils now than at this time in any year since the weevil invaded the State.
- South Carolina C. O. Eddy (August 15): Weevil infestation is light and found only in scattered areas in the lower and middle Piedmont sections. No weevils have been reported in the extreme upper section of the State.
- Georgia R. M. Seeley (July 29): There is the worst infestation of the boll weevil since 1923 throughout southern, middle, and northwestern Georgia.
- O. I. Snapp (August 11): The boll-weevil infestation is greater now in middle Georgia than it has been for a number of years. It has ruined the top crop, and infested squares are falling rapidly. As a result the cotton crop is going to be short.
- R. M. Seeley (August 29): The following is a report on the cotton boll weevil situation in the State of Georgia:
- South of a line drawn through Troup, Meriwether, Spalding, Butts, Jasper, Putnam, Green, Taliaferro, and Lincoln Counties (the southern 2/3 of the State) damage is estimated to be 40-50 per cent, with a total loss in some areas. Hundreds of acres will

not be picked. Only a light bottom crop will be harvested. There has been no blooming in three or four weeks. Many bolls which now appear to be safe are in fact punctured. North of this line it is estimated the minimum infestation is 20 per cent. While there is a light infestation in all counties that grow cotton in this State, the damage decreases as one advances northward from above line.

#### Arkansas

Dwight Isely (August 16): Boll weevils appear to be more abundant in the western portion of the State this year than in any year since 1923. There is more infestation on the hill farms in this portion of the State than I have ever seen. Our records for the eastern portion of the State are not so complete as usual, but apparently the boll weevil is not proportionately so serious as in the western portion.

#### Alabama

J. H. Robinson (August 1): Boll weevils are present rather generally in central and southern Alabama, in enormous numbers.

(August 16): The boll weevil has become more numerous than in any previous year in central and southern Alabama. The top crop in the later cotton has been entirely removed by this pest. In some of the Piedmont region the entire crop has been practically destroyed, as there will not be more than 50 bolls of cotton to the acre. This is perhaps in a rather limited area. Of 6,489 squares counted on undusted plats 65 per cent were punctured.

#### Louisiana

B. R. Coad (August 8-13): The average infestation on 6 cuts of old cotton was 65.9 per cent. The infestation ranged from 56.6 to 75.0 per cent.

W. E. Hinds (August 20): Boll weevil infestation has been complete in many fields for at least 10 days and is rapidly reaching the condition of complete infestation in the majority of undusted fields. However, the infestation has been so "spotted" in the earlier part of the season that some fields are still making cotton.

#### Mississippi

R. W. Harned (July 25): Boll weevil condition compared with previous years.

	1925 July 25	1926 July 24	1927 July 23
Number of counties inspected.....	26	21	31
Number of farms inspected.....	101	135	103
Number of farms infested.....	81	111	86
Per cent of farms free of weevil.....	19.9	17.7	20.4



Highest infestation reported (per cent) .....	42	25	52
Average per cent infestation of infested farms .....	4.42	4.28	12.9
Average per cent infestation of all farms.....	3.55	3.53	10.2
Increase or decrease in weevil infestation preceding week.....	15	59	14
	(decrease)	(increase)	(decrease)

Mississippi State Plant Board (August 20): Boll weevils broke all previous records of the season during the past week with an average of 40 per cent of the squares punctured in the hill counties of the State, according to reports of the State Plant Board inspectors who examined 37 farms in 21 counties. This is a marked increase over the preceding week when the infestation averaged only 30 per cent, and that of 18 per cent two weeks ago.

#### Texas

F. C. Bischoff (August 1): (Telegram) Boll weevil not so injurious as the boll worm, but some fields moderately infested.  
(August 26): Boll weevil injury has greatly increased during this month. At the present time practically all squares are being punctured as put on, and many bolls even though fairly well matured, are being infested.

F. L. Thomas (August 20): The eastern section of the State has had far more boll weevil injury than usual, reports being received from 59 counties during the period August 1 to 15. The reports from two of these counties, which are in the western part of the State, have not been verified, viz. Dickens and Orion. There appears to be an area of 8 to 10 counties in central Texas where boll weevils have not been abundant except in the wooded sections. The crop in this area is a little better than average. Hot, dry weather has practically stopped growth.

#### COTTON FLEA HOPPER (Psallus seriatus Reut.)

#### North Carolina

R. W. Leiby (August 19): Adults are now commonly observed in cotton blooms. Their injuries appear to be confined to the tiny squares on the terminals of the stalks. Their present feeding may aid boll-weevil damage, the further development of squares forcing the weevil to attack partly grown bolls.

#### Georgia

R. H. Seeley (July 29): There has been some damage in spots by the cotton flea hopper but not very serious.

#### Alabama

J. M. Robinson (August 16): Cotton hopper adults are more abundant now than they have been at any period of the year. However, the cotton is so far advanced that no serious damage will result.

#### Mississippi

R. W. Harned (July 25): Cotton hoppers are reported in many fields but very few complaints of damage have been received to date.

- Texas F. C. Bishopp (August 1): Cotton hoppers are destructive in a few fields.
- F. L. Thomas (August 8): Cotton flea hopper reports continue to filter in, coming from 6 counties.

COTTON LEAF WORM (Alabama argillacea Hbn.)

- Arkansas Dwight Isely (August 16): Leaf worms have been collected in Washington County and specimens have also been received from Lawrence County, in the northeast corner of the State, indicating that the species is fairly well distributed over Arkansas at present.
- Louisiana W. E. Hinds (August 20): Cotton leaf worms are reported as abundant in many fields in the northwestern part of the State and extending at least as far east as Monroe.
- Alabama J. M. Robinson (August 16): The cotton leaf worm has not shown up in any localities of the State.
- Mississippi R. W. Harned (August 22): The first specimens of the cotton leaf worm received from points in Mississippi during 1927 were collected on August 5 at Deeson in Bolivar County. A very light infestation was reported. Specimens have since been received from Lee, Washington, Desoto, Yazoo, Alcorn, Sharkey, and Tallahatchie Counties. In all cases a general light infestation was reported. In most cases the worms were beginning to "web-up." Another generation is expected at any time. Reports that we have received at this office indicate that generations are overlapping to a great extent. Reports from other places indicate that the infestations occur throughout the northern half of the State.
- Texas F. L. Thomas (August 20): Leaf worms have caused very little injury to date in the greater part of the State. Parasites have contributed greatly in holding the numbers in check. Have just returned from a trip to Lamar, Collin, and Hill Counties where many sections in each county were visited. Excepting one field in Hill County, I saw no place where there was even a threat of injury. Worms were first reported from Hill County over a month ago. Only 17 counties reported for the past two weeks period. These reports are from widely scattered sections: Hudspeth, Midland, Mitchell, Wilbarger, Hayes, Lavaca, Victoria, Stephens, Ellis, and a few others in the northeast.
- F. C. Bishopp (August 26): On August 10 a few newly hatched leaf worms appeared in some fields in this county (Dallas). Toward the end of the month a number of farmers began poisoning their cotton against the insect. On August 26 many of the leaf worms in nonpoisoned fields are fully grown, and are spinning up. A small percentage has already pupated. The infestation has not become general, and while the fields most heavily infested are "ragged" considerably no material damage has been done by the first brood.

COTTON BOLL WORM (Heliothis obsoleta Fab.)

Alabama J. M. Robinson (August 1): The cotton boll worm is showing up in restricted areas with light infestations. (August 16): The cotton boll worm has shown up in various spots throughout the entire State. In some areas such as at Hartsells and Samson they have been reported as doing considerable damage.

Louisiana W. E. Hinds (August 20): Boll worms are injurious to full-grown bolls.

Texas F. C. Bishopp (August 1): Telegram: Boll-worm damage to cotton in parts of Dallas and Collins Counties is about 5 to 10 per cent and there are prospects for a great increase.

F. L. Thomas (August 20): Boll worm injury is severe in many places, increasing in one field of this county (Drazos) from 10 to 26 per cent on 1,700 bolls during the period August 3 to 11. In Collin County 39 per cent of the bolls were injured and in Lamar County the average was 3.3 per cent with a maximum of 8 per cent.

F. C. Bishopp (August 26): Boll-worm injury has almost stopped in the cotton fields of northern Texas. Severe damage was done during the first half of the month, the crop on many fields being cut from 10 to 50 per cent. The injury, however, appears to have been more or less spotted.

COTTON APHID (Aphis gossypii Glov.)

South Carolina E. W. Dunnam (August 16): Cotton lice can be found in almost all cotton fields but are not causing serious damage..

Alabama J. M. Robinson (August 16): The cotton aphid was very abundant on dusted plots in early August but has been reduced to a minimum by the activity of hymenopterous insects, ladybird beetle larvae, and syrphid larvae. The principal ladybird is Hippodamia convergens Guer. However, Coccinella novemnotata Host. is more abundant than last year.

Louisiana W. E. Hinds (August 20): Cotton plant lice have developed abundantly in some localities and particularly where poison for the boll weevil has been applied.

CABBAGE LOOPER (Autographa brassicae Riley)

Mississippi R. W. Horned (August 22): Specimens that have been tentatively identified as the cabbage looper, Plusia brassicae, have been received recently from two localities in Yazoo County, one locality in Humphreys County, and one in Sharkey County. In each case they were collected on cotton. One moth was reared and definitely determined by Dr. Dyar as Plusia brassicae.



FALL WEBWORM (Hyphantria cunea Drury)

Mississippi R. W. Harned (August 22): Larvae collected on cotton at Clarksdale in Coahoma County and in Rosedale County during the latter part of July were sent to Washington for definite determination. A letter from Dr. A. L. Quaintance states that Mr. C. Heinrich of the Bureau of Entomology tentatively identified these specimens as Hyphantria cunea, with the comment that the larvae were a trifle unusual. On August 22 more of these insects were received from Madison County where they were attacking cotton.

GARDEN WEBWORM (Loxostege similalis Guen.)

Mississippi R. W. Harned (August 22): Specimens of the garden webworm were received recently from four farms in Yazoo County where they were collected on cotton.

FALL ARMYWORM (Lophyrus frugiperda S. & A.)

Alabama J. H. Robinson (August 16): The fall armyworm is appearing from grass in cornfields into the edge of some cotton fields and has devoured the cottonfoliage to the point, at least in one instance, where the farmer has become alarmed.

CUTWORMS (Noctuidae)

Louisiana W. E. Hinds (August 20): Late planted cotton is being damaged severely by cutworms and grassworms.

FLEA BEETLES (Malticinae)

Mississippi R. W. Harned (August 22): Blister beetles of the species Epicauta strigosa Gyll. and E. ferruginea Say were collected on cotton at Steens August 11, where they were reported doing considerable damage

STRIPED FLEA BEETLE (Systena taeniata Say)

Georgia R. H. Seeley (July 29): The striped flea beetle was found doing serious damage to cotton through May and the first half of June, but has apparently disappeared from cotton since July 1.

SPOTTED CUCUMBER BEETLE (Diabrotica duodecimpunctata Fab.)

Georgia O. I. Snapp (July 30): This insect is unusually abundant in this section this year. It has been attacking the blooms of cotton, feeding on the petals, and also in some cases on the little squares.

RED SPIDER (Tetranychus telarius L.)

North Carolina R. W. Leiby (August 18): The red spider has been present in sections of the State in such numbers that it will materially reduce



the yield of cotton. Fields have been seen recently where areas as large as 15 acres will hardly yield a third of a bale to the acre. In such instances the plants are now almost devoid of foliage.

### TOBACCO

#### TOMATO SUCKER (Diciphus minimus Uhler)

North  
Carolina

R. W. Leiby (August 20): Moderate to severe injury by a mirid determined by C. S. Brimley as Diciphus minimus has been noted on tobacco in Edgecombe, Nash, and Wake Counties. Complaints of injury have also been received in the office. Tobacco leaves become spotted, pale, and lose their "body" as a result of extensive sucking of the sap by adults and immature stages.

### FOREST AND SHADE - TREE INSECTS

#### MISCELLANEOUS FEEDERS

#### WHITE-MARKED TUSSOCK MOTH (Hemerocampa leucostigma S. & A.)

Delaware

H. L. Dozier (July 18): The white-marked tussock moth is very abundant on shade trees, especially sycamore. On this date the majority were cocooning and parasites were extremely abundant. Pimpla infusator Scop. P. annulipes Brulle, Chalcis ovata Say and several species of tachinid flies and hyperparasites were reared.

Indiana

B. A. Porter (August 27): More tussock moth larvae have been noticed than usual, although they have not been sufficiently abundant in southern Indiana to cause conspicuous damage.

#### BAGWORM (Thyridopteryx ephemeraeformis Haw.)

Delaware

H. L. Dozier (July 18): The common bagworm was present in large numbers feeding on shade trees, especially sycamore.

Georgia

R. M. Seeley (July 29): The bagworm has been unusually prevalent this year throughout Georgia, especially on arbovitae and cedars, but has also been reported attacking a rambler rose and a clematis vine.

Ohio

E. W. Mendenhall (August 2): Many of the shade trees such as Norway maple, sycamore, boxelder, elm, and others are badly infested by this pest in Dayton and vicinity. (August 19): The bagworm is getting worse each year in the towns and cities in southern Ohio. Many trees are defoliated by them.

Indiana

H. K. Riley (August 20): Bagworms have been quite prevalent on ornamental trees this season. Recent reports are from West Point, Greensburg, Fairbanks, and Indianapolis.

B. A. Porter (August 27): Unusually abundant in southern Indiana. Numerous evergreens, boxelder, and other trees defoliated. Occasional young apple trees defoliated in young orchards which have received insufficient spraying.

Missouri K. C. Sullivan (July 29): The common bagworm seems to be more wide spread here than in the past, and is causing considerable damage to shade and ornamental trees.

Nebraska H. H. Swenk (July 25-August 25): The bagworm has been reported more common than usual as attacking arbervitae and other evergreens in our extreme southeastern counties. During the first week in August two infestations were found at Lincoln, one in an orchard near the city and another on the evergreen ornamentals in a yard in the city. It rarely is found as far to the northwest in Nebraska as Lincoln.

Mississippi R. W. Haried (August 22): Specimens of the common bagworm on arbervitae were received from Corinth July 25, from Jackson July 30, and from Starkville July 30 and August 8. At all places they were reported as rather serious.

#### FALL WEBWORM (Hyphantria cunea Drury)

Connecticut W. E. Britton (August 24): The fall webworm is moderately abundant on shade trees and fruit trees at New Haven, Granby, Lyme, and Putnam.

#### RED SPIDER (Tetranychus telarius L.)

New Jersey R. B. Lott (August 10): Injury from the red spider unusually bad throughout the State, especially on juniper, spruce, and Thuya.

Ohio E. W. Mendenhall (July 23): In private plantings in several places in central and southern Ohio, I find the red spider mite attacking blue spruce. (August 19): The red spider mites have been unusually bad this summer, injuring arbervitae, spruce, ornamental plants of different kinds, and vegetables such as eggplant, etc.

Indiana J. J. Davis (August 1): The red spider damaged Norway spruce at Marion July 21.

#### EUROPEAN RED MITE (Paratetranychus pilosus C & F.)

New Jersey R. B. Lott (August 8): The European red mite is very abundant. The undersides of some limbs are so red with mites that they can be seen several yards distant.

OYSTER-SHELL SCALE (Lepidosaphes ulmi L.)

- Ohio E. W. Mendenhall (August 2): I find that the oyster-shell scale is quite bad on the soft maple and elm trees in Dayton and vicinity.
- Indiana H. K. Riley (August 20): The oyster-shell scale on ash was reported August 12 from Mishiwaka.

TAMARISK SCALE (Chionaspis etrusco Leon.)

- Arizona Arizona News Letter (July 31): The tamarisk scale was reported damaging trees in the city of Phoenix at two different localities. Efforts are being made by the city officials to distribute the ladybird beetle which is parasitic upon this scale, into all the districts of the city where the pest is known to exist.

FULLER'S ROSE BEETLE (Pantomorus fulleri Horn)

- North Carolina W. A. Thomas (August 20): This insect has recently appeared in considerable numbers in the forests of this section and is defoliating some of the smaller trees. The injury is especially severe on magnolia and bay. The attack on sumac is confined almost entirely to the developing bloom buds.

BEECH

WOOLLY BEECH APHID (Prociphilus imbricator Fitch.)

- Indiana H. K. Riley (August 20): Woolly beech aphids were reported from Carmel August 18.

BIRCH

BIRCH LEAF MINER (Tentax numila Klug)

- Connecticut W. E. Britton (August 24): The birch leaf miner has been reported as in the usual abundance on birch at New Haven, Hamden, Sherman, Woodbury, Southbury, and Granby.

BOXELDER

BOXWOOD LEAF ROLLER (Gracilaria negundella Cham.)

- South Dakota H. C. Severin (August 8): Gracilaria negundella Cham. is unusually abundant on boxelder.

CATALPA

CATALPA SPINX (Ceratonia catalpae Boisd.)

- Maryland J. A. Hyslop (August 23): Some defoliation in Montgomery County.

Ohio E. W. Mendenhall (August 5): The first and only outbreak of the catalpa sphinx larvae is west of Dayton this year. Other years they have been very plentiful.

A DIPTEROUS LEAF MINER (Phytomyza sp.)

Ohio E. W. Mendenhall (August 6): I find the leaf miner quite bad in the catalpa leaves in Bellefontaine, Logan County.

ELM

ELM LEAF BEETLE (Galerucella xanthomelana Schrank)

Connecticut W. E. Britton (August 24): The elm leaf beetle is less in evidence than usual in New Haven.

Ohio E. W. Mendenhall (August 12): I find that an outbreak of the elm leaf beetle, Galerucella luteola, in Piqua, according to records, is the farthest south it has been found in Ohio.

EUROPEAN ELM SCALE (Gossyparia spuria Modeer)

Ohio E. W. Mendenhall (August 6): I find the European elm scale quite general on the elms in Dayton and vicinity.

HEMLOCK

HEMLOCK SPANWORM (Elleopia fiscellaria Guen.)

Wisconsin A. A. Granovsky (August 17): Only a few larvae are now present in the State Park area in Deer County as a result of dusting with calcium arsenate last year. Two were found in half a day's search. Considerable infestations occur at Bailey's Harbor, Jacksonport, Washington Island, and east of Sturgeon Bay, which were not treated, but the insects are not sufficiently numerous at these locations to be of economic importance.

Maine J. V. Schaffner, Jr. (August 11): A woodlot of about 100 acres, 80 per cent hemlock, the rest birch, pine, spruce, and oak, has been practically completely stripped; feeding has been confined almost entirely to the hemlock. This report was received from one of our Quarantine inspectors.

LOCUST

LOCUST LEAF MINER (Chalepus dorsalis Thunb.)

Connecticut M. P. Zappe (August 11): Work of this insect is much more injurious in Windham County than usual. It is also more noticeable in other sections of the State.



A PLANT BUG (Orthotylus chlorionis Say)

Mississippi R. W. Harned (August 22): Under date of April 7 we received from Harrison County some Miridae collected on honey locust with a note that the insects were "Destroying foliage. Tree almost entirely defoliated." We requested more specimens. On April 26 five adults were collected and sent to us with the statement, "Difficult to find any now."

Under date of April 29, the County Agent wrote, "Yesterday I examined the locust tree and found that practically all of the insects have disappeared and the foliage is beginning to come out fast." These insects have now been determined by W. L. McAtee as Orthotylus chlorionis.

ROSY HISPA (Anoplitus inaequalis Web.)

Ohio E. W. Mendenhall (August 3): The black locust throughout southern Ohio is affected by rosy hispa which is doing considerable damage.

LOCUST TWIG BORER (Ecdytolopha insiticiaria Zell.)

Missouri A. C. Burrill (July 24): Ecdytolopha insiticiaria Zell. is on some shade trees of honey locust in Jefferson City. This gall lepidopteron has slowly increased during the past four years until many branches are much distorted.

MAPLE

COTTONY MAPLE SCALE (Pulvinaria innumerabilis Rathv.)

Ohio E. W. Mendenhall (August 23): The cottony maple scale is very bad on maple in Mt. Vernon and Newark.

Illinois W. P. Flint (July 19): This scale is unusually abundant in east central and northern Illinois. Eggs have been hatching in this section during the last two weeks.

GLOOMY SCALE (Chrysomphalus tenebriosus Comst.)

Ohio E. W. Mendenhall (August 15): I found an outbreak of the gloomy scale on soft-maple trees in one of the nurseries in Montgomery County.

FLAT-HEADED APPLE TREE BORER (Chrysobothris foveata Oliv.)

Indiana J. J. Davis (August 1): The flat-headed apple tree borers were reported injurious to maples at Indianapolis July 20.

OAK

CHAIN-SPOTTED GEOMETER (Cingilia catenaria Drury):

Verm  
Hampshire J. V. Schaffner, Jr. (August 17): A report received August 5 that 50 acres of sprout growth was being defoliated at Amherst. The insect causing the damage has been identified as Cingilia catenaria Drury. Feeding confined principally to oak, sweet fern, and huckleberry.

PINE

PINE LEAF SCALE (Chionaspis pinifoliae Fitch)

Ohio E. W. Mendenhall (August 6): I find the pine leaf scale quite abundant on pine and spruce in some nurseries about Dayton.

WOOLLY PINE SCALE (Pseudophilippa quintancii Ckll.)

Ohio E. W. Mendenhall (August 6): There were a few cases of the woolly pine scale in some of the nurseries about Dayton this season. It is known locally as "bleeding pitch" and "pitch pine wool."

SYCAMORE

SADDLE-BACK CATERPILLAR (Sibine stimulea Clem.)

Indiana H. K. Riley (August 20): Saddle-back caterpillars were found feeding on sycamore at Westport August 12.

SYCAMORE LACE BUG (Corythuca ciliata Say)

Mississippi K. L. Cockerham (August 16): Sycamore trees at several residences were inspected and found to be heavily infested with a lace bug. The leaves have been turned a dull brown from the attack of these insects. The owners stated that this is the most serious outbreak that they have ever seen on sycamore.

R. T. Harned (August 22): Specimens of lace bugs that have been identified by J. N. Longston as Corythuca ciliata on sycamore from Gulfport August 8.

WALNUT

WALNUT CATERPILLAR (Datana integerrima G. & R.)

Indiana J. J. Davis (August 1): The walnut worm, Datana integerrima, was common on walnut the past week at Bedford and Vincennes.

WEBWORM (Crambus spp.)

Indiana

J. J. Davis (August 11): Webworms are abundant in walnut and other timber trees at Bedford.

GREENHOUSE AND ORNAMENTAL PLANTS

MISCELLANEOUS FEEDERS

TIP MOTH (Rhyacionia frustrana Comst.)

Georgia

R. M. Seeley (July 29): The pine tip moth has been found attacking ornamental pines near Atlanta.

A WASP (Chorion ichneumoneum L.)

Indiana

H. K. Riley (August 20): A wasp, Chorion ichneumoneum, was reported working in flower beds at Fort Wayne August 8.

SNAILS (Mollusca)

Ohio

E. W. Mendenhall (July 15): The begonias in the greenhouses in Springfield are attacked by the snails and considerable injury is done.

CHRYSANTHEMUM

CHRYSANTHEMUM GALL MIDGE (Diarthronomyia hypogaea F. Loew)

Mississippi

R. W. Harned (August 22): Specimens of the chrysanthemum midge were received from Greenville August 12, where they were collected on chrysanthemum.

GREENHOUSE LEAF-TYER (Phlyctaenia rubiculis Guen.)

Ohio

E. W. Mendenhall (August 23): There are quite a good many greenhouse leaf tyers on the chrysanthemum in the greenhouses in Newark.

Mississippi

R. W. Harned (August 22): Chrysanthemum leaves that had evidently been injured by the greenhouse leaf tyer were received from Ridgeland in Hinds County during the first week in August.

A FLEA BEETLE (Systena elongata Fab.)

Mississippi

R. W. Harned (August 22): Flea beetles identified by J. M. Langston as Systena elongata were collected on chrysanthemum plants at Corinth July 28.

CREPE MYRTLE

STRAWBERRY FLEA BEETLE (Haltica litigata Fall)

Mississippi R. W. Harned (August 22): Specimens identified as Haltica litigata were found injuring crepe myrtle at Pascagoula August 1.

AN APHID (Myzocallis sp.)

Mississippi R. W. Harned (August 22): Among the aphids that have been received and indentified by A. L. Hamner is Myzocallis sp., collected on crepe myrtle at Ridgeland and Gulfport on August 8.

DAHLIA

SPOTTED CUCUMBER BEETLE (Diabrotica duodecimpunctata Fab.)

Ohio E. W. Mendenhall (August 19): The 12-spotted cucumber beetle has done some damage to dahlias this year in Miami County.

GOLDENGLOW

CHRYSANTHEMUM LACE BUG (Corythuca marmorata Uhl.)

Mississippi R. W. Harned (August 22): Specimens of lace bugs that have been tentatively identified by J. H. Langston as Corythuca marmorata were taken on goldenglow from Pascagoula on August 4.

IRIS

IRIS BORER (Macronoctua onusta Grote)

Michigan E. I. McDaniel (August 16): Last week we obtained some iris roots containing the iris borer. This is, I believe, the first record for Michigan. We placed these in cages in order to breed out the iris borer and today fifty or so adults of the lesser bulb fly, Eumeris strigatus, are in the cages. We were, of course, prepared for the later event, on finding larvae of this pest in the dirt and in the decaying bulbs. This makes the first record for the lesser bulb fly also.

PASSION FLOWER

GULF COAST FRITILLARY (Dione vanillae L.)

Mississippi M. R. Smith (August 23): Passion flower vines in the neighborhood of the Biology Building at the A. & M. College have been considerably defoliated by caterpillars of the Gulf Coast fritillary. Many of the chrysalids are hanging from a coping on the building 30 feet from the ground.



TAXUS

BLACK VINE WEEVIL (Brachyrhinus sulcatus Fab.)

Connecticut M. P. Zappe (August 10): Larvae have caused considerable injury to roots of Taxus, and adults were emerging on the above date. Some feeding by adults on leaves of Taxus, but little real injury is caused by larvae.

ROSE

AN APHID (Myzaphis rosarum Kalt.)

Ohio E. W. Mendenhall (August 22): The green rose aphid is quite bad, as usual, on hybrid tea roses. They infest the new growth and destroy the buds.

ROSE STEM SAWFLY (Adirus trimaculatus Say)

Ohio E. W. Mendenhall (August 18): The rose stem borer was found in Columbus this summer doing some damage to rose plants.

ROSE SCALE (Aulacaspis rosae Bouche)

Ohio E. W. Mendenhall (August 6): I find in private plantings quite often that the rose scale is quite bad.

VERBENA

MARGUERITE LEAF MINER (Phytomyza chrysanthemi Kowarz)

Mississippi R. W. Harned (August 22): The marguerite fly, Phytomyza chrysanthemi, was collected on verbena plants at Como July 28.

WOODBINE

GRAPE LEAFHOPPER (Erythroneura comes Say)

Nebraska H. H. Swenk (July 25-August 25): Injury by the grape leafhopper to woodbine leaves continued to be reported during the period covered by this report.

A CHRYSOMELID BEETLE (Rhabdopterus picipes Oliv.)

New York H. E. Buckman (July 28): The evidence of the feeding of Rhabdopterus picipes on Virginia creeper leaves is fairly common.

I N S E C T S   A T T A C K I N G   M A N   A N D  
D O M E S T I C   A N I M A L S

MAN

HOUSE FLY (Musca domestica L.)

Texas            F. C. Bishopp (August 26): House flies appear to be unusually abundant about dairies for this time of year.

BEDBUG (Cimex lectularius L.)

Indiana        H. K. Riley (August 20): Bedbugs were found in Fort Wayne August 12.

FLEAS (Siphonaptera)

Indiana        H. K. Riley (August 20): An infestation of fleas was reported from Culver August 9.

Georgia        K. C. Sullivan (July 29): Fleas are coming in for their publicity, and bad infestations in barns and outbuildings are being reported very frequently.

STRAW ITCH MITE (Pediculoides ventricosus Newport)

Mississippi    R. W. Harned (August 22): Two reports have been received recently in regard to severe irritation to the skin of people who are working with cowpeas. It is our opinion that this irritation has been caused by the predacious mite Pediculoides ventricosus that attacks the cowpea weevil and the 4-spotted weevil. The reports came to us from correspondents at Lucy, Tenn. and Kendrick, Miss. At the same time the correspondent from Kendrick sent us some specimens of the 4-spotted bean weevil, Bruchus quadrimaculatus Fab.

CHIGGERS (Trombicula irritans Riley)

Texas           F. C. Bishopp (August 26): Chiggers have continued to annoy people in this section (Dallas) throughout the summer. They are more numerous this August than normal.

WOOD TICKS

General  
statement      F. C. Bishopp (August): A number of cases of tularaemia have been reported from Arkansas, Louisiana, Tennessee, and Texas during the summer. A number of these cases have been attributed to the bites of wood ticks, presumably Dermacentor variabilis and Amblyomma americanum.

ANIMALS

HORSES

BLACK HORSE FLY (Tabanus atratus Fab.)

Ohio E. W. Mendenhall (August 6): The mourning horse fly is quite common in the southern part of the State and quite annoying to stock.

STABLE FLY (Stomoxys calcitrans L.)

Texas F. C. Bishopp (August): The abundance of this livestock pest has varied considerably in different sections of northern Texas. Reports from Denton County indicate serious annoyance from the fly. In this section farmers have complained of the flies being so numerous as to render the working of mules and horses in the fields difficult. This rather heavy abundance appears to extend northward into Cook and Grayson Counties. Dairymen in the vicinity of Dallas report much less trouble from this fly this season than usual.

CATTLE

HORN FLY (Haematobia irritans L.)

Texas F. C. Bishopp (August 25): Horn flies have been present in about the usual numbers this month. On this date the number per animal ranged from 75 to 700 up to 250 to 2,000.

SCREW WORM (Cochliomyia macellaria Fab.)

Texas F. C. Bishopp (August 26): Screw worms have continued to cause losses among all classes of stock throughout August, though the number of cases has greatly decreased from that of July. Shearing of goats and sheep has begun in southwestern Texas, and most ranchmen are endeavoring to reduce the number of shear cuts so as to avoid screw worm injury as far as possible. The trapping of screw worm flies has continued in the sections where this was begun systematically in the spring. But the number of flies captured has decreased during August. Screw-Worm cases have been reported to be more numerous than usual during this season in eastern Texas as well as in the range country of southwestern Texas.

SHEEP

A SAND FLY (Culicoides variipennis Coq.)

Texas F. C. Bishopp (August 6): This sand fly is causing some annoyance to livestock, especially sheep, and also to men working in the

bottom lands close to the creeks where the insects breed. In general the number of these gnats has been less than last year, probably owing to more frequent flooding of the streams.

HONEYBEES

WAX MOTH (Galleria mellonella L.)

Nebraska

H. H. Srenk (July 25-August 25): An unusual number of reports of infestations of colonies of honeybees with the wax moth were received during August.

INSECTS INFESTING HOUSES AND  
PREMISES

TERMITES

Missouri

K. C. Sullivan (July 29): We are receiving an unusually large number of inquiries regarding termites. These inquiries are coming from all sections of the State and considerable damage is being done to dwellings and similar buildings.

A. C. Burrill (August 2): In several drug stores Reticulitermes flavipes has attacked the woodwork, including timbers in show cases, wooden backs of several drawers of drugs, and the wooden floor of an alcove where drugs are stored. Pest of room finished in tile and reenforced cement construction, brick front. This pest has also attacked furniture crates and old boxes in an old barn.

ANTS (Formicidae)

Mississippi

M. R. Smith (August 1): One of our correspondents at Bay Springs sent us a number of specimens of the small sugar ant, Frenolepis (Mylanderia) sp. which she claimed had been giving trouble in her house for the past two years. Mr. Horace Gladney, one of our inspectors, reports that he found a sill of a house at Ocean Springs thoroughly tunnelled by an ant which has been identified by the writer as Camponotus caryae subsp. nasalis Wheeler. This species, which normally nests in galls and limbs of trees has been taken a number of times from houses in this State. Its habits are very similar to those of the carpenter ant.

FIRE ANT (Solenopsis geminata Fab.)

Mississippi

M. R. Smith (August 1): The writer observed a nuptial flight of the fire ant taking place at 4 p.m. The day had been clear and very warm up to the time of the flight. While workers, males, and females of this ant were swarming over the ground in large numbers a very small fly was observed to hover above the ants and to occasionally dart at the workers. As many as four or five of the flies



were seen at one time. When a fly struck a worker ant it would fall over on one side and act as if it had lost its equilibrium. After remaining in this position for a few seconds the ant would get up and run away, apparently as briskly as ever. None of the flies were seen to attack the male or female ants. It is highly probable that this is the phorid fly Pseudacteon crawfordii Coq. which was originally described from Texas.

PHARAOH'S ANT (Monomorium pharaonis L.)

Mississippi H. R. Smith (August 1): A correspondent who lives several miles from Biloxi sent in for identification a number of Pharaoh's ants. She stated that the house was only two years old, yet the ants were overrunning it.

ARGENTINE ANT (Iridomyrmex humilis Mayr)

Texas E. C. Bishopp (August 1): Telegram: Argentine ant reported for the first time in Temple.

POWDER POST BEETLES (Lyctus spp.)

Indiana H. K. Riley (August 20): The powder post beetles were reported damaging hickory timber at Russellville August 4.

CARPET BEETLE (Anthrenus scrophulariae L.)

Indiana J. J. Davis (August 1): Carpet beetles were reported damaging furniture at Ossian July 25.

CLOTHES MOTHS (Tinea pellionella L. and  
(Tineola biselliella Hum.)

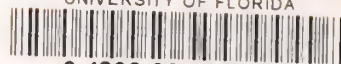
Indiana J. J. Davis (August 1): Clothes moths were abundant at Columbia City.

SILVERFISH (Lepisma sp.)

Indiana J. J. Davis (August 1): Silverfish was reported damaging rugs at Wappanee July 25.

H. K. Riley (August 20): Silverfish were found in a clothes closet at Monon August 16.

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